

NORRES INDUSTRIAL HOSES HOSES FOR ALL APPLICATIONS.







NORRES INDUSTRIAL HOSES HOSES FOR ALL APPLICATIONS.

About us

NORRES Group

NORRES, headquartered in Gelsenkirchen, Germany, is a global player and a leading manufacturer of technical hoses, hose systems and other innovative, high-performance plastic products. With production and sales office locations in the USA, Asia and Europe, NORRES is the trendsetter in constantly developing product and system innovations, many of which are protected by patents or utility models. As a well-established manufacturer with more than 130 years of tradition, NORRES is known for its customised solutions. The objective: NORRES customers save time and money thanks to efficiency and decisive product advantages.

NORRES product portfolio

NORRES offers its customers a comprehensive portfolio of standard products as well as made-to-measure products. NORRES' certification to ISO 9001 in Germany underlies the consistently high standard – from product development through to production to purchasing and logistics. NORRES products comply with a wide range of regulations such as the ATEX Directive, UL approvals, FDA conformity, EU directives and numerous others. Furthermore, NORRES offers convincing solutions in the field of cable protection systems and environmental

technology thanks to the use of high quality plastic materials such as Pre-PUR®. NORRES thus provides a comprehensive and unparalleled product portfolio with future-oriented solutions in the field of plastic hoses. The objective: Reliability, certified quality and a broad spectrum across all product segments.

NORRES innovations

An extremely high level of vertical manufacturing combined with an in-house engineering department with proven expertise in this field is the key qualification and the hallmark of NORRES within the industry. Innovations and standard products are designed to help you solve even the most complex technological challenges. The objective: Further extending our technological leadership to the benefit of our customers.

NORRES services

Know-how, individual consultation and quality are the distinctive features of our services: From consulting and modern logistics through to customer-specific marketing services. NORRES offers impressive performance. The objective: NORRES develops customised service packages that add real value for successful cooperation.

Take advantage of the competence and performance of the market leader in the field of technical hoses and hose systems. NORRES – simply flexible!

NORRES Group - expertise in quality and service

Founded in 1889, NORRES has more than 130 years of experience and tradition. Today, NORRES is a global player and leading manufacturer of technical hoses and hose systems: Highly abrasion proof Pre-PUR® polyurethane hoses, suction and transport hoses from PVC. TPE, PE, EVA, silicone etc., high temperature hoses up to 1,100 °C, electrically conductive and antistatic hoses, connecting elements and accessories, many certified products (e.g. ATEX Directive, EU Directives, FDA compliance, UL approvals and numerous others, customised solutions. NORRES products are available as suction and transport hoses and for transportation of bulk solids in the food and pharmaceutical industry, in agriculture, for mobile and stationary extraction systems, for machines in the wood and plastic industry, for municipal vehicles, as cable protection hose system in the electro-technical area and as energy-saving and long lasting membrane diffuser in sewage plants.

Content

OUTION OF PRODUCES	
Operative Excellence	6
NORRES Product Quality: Icons	8
NORRES Product Quality: Raw Material Pre-PUR®	g
Applications	10
Polyurethane (Pre-PUR®) suction hoses and conveying hoses	20
Polyurethane (Pre-PUR®) foodstuff hoses	28
Hoses for the woodworking industry	34
TPE suction hoses and conveying hoses	36
PVC, PE, EVA suction and transport hoses	38
BARDUC® suction and pressure hoses	46
NORPLAST® suction hoses and pressure hoses	48
Metal hoses	54
Hot air hoses, high-temperature hoses (-200 +1.100 °C)	56
Exhaust gas hoses for combustion engines	64
Flame resistant hoses for rail vehicles, buses	66
PVC, PE air conditioning and ventilation hoses, air conditioning hoses, insulating hoses	68
Compressed air hoses, pneumatic hoses, fluid hoses	74
Accessories, hose clamps, couplings, flanges, sleeves, integration systems (clamping shells, pressing sleeves, casting)	78
Assembling configurator	92

Products

Product number	Product description	Page
202	CONNECT 202	89
203-204	CONNECT 203-204	89
205	CONNECT 205	90
206	CONNECT 206	90
208	CLAMP 208	80
210	CLAMP 210 BRIDGE CLAMP	80
211	CLAMP 211	81
212	CLAMP 212	80
212 EC	CLAMP 212 EC	81
213	CLAMP 213	81
216	CLAMP 216	80
217	CLAMP 217	81
223	CONNECT 223	88
226	CONNECT 226	88
227	CONNECT 227	88
228	CONNECT 228	82
230	CONNECT 230	82
231	CONNECT SAFETY CLAMP ASSEMBLY 231	82
232	CONNECT PRESS ASSEMBLY 232	82
233	CONNECT MOULD ASSEMBLY 233	83
234	CONNECT THREAD FITTING 234	83
240 + 241	CONNECT 240 + 241 AS	84
240 + 241 FOOD	CONNECT 240 + 241 FOOD	84
240 EC	CONNECT 240 EC	84
242	CONNECT 242	85
243	CONNECT 243	85
243 FOOD	CONNECT 243 FOOD	85
244	CONNECT 244	85
244 FOOD	CONNECT 244 FOOD	86
245	CONNECT 245	86
245 FOOD	CONNECT 245 FOOD	87
245 TRI-CLAMP	CONNECT TRI-CLAMP FITTING 245	83
245 VAC-TRUCK	CONNECT 245 VAC-TRUCK	86
246	CONNECT 246 AS	87
246 FOOD	CONNECT 246 FOOD	87
247	CONNECT DAIRY FITTING 247	83
249	CONNECT ASEPTIC FITTING 249	84
251	CONNECT STORZ DIN ALU 251	90
252	CONNECT TANK TRUCK BRASS 252	91
253	CONNECT KAMLOK ALU 253	91
254	CONNECT KARDAN 254	91
270-271	CONNECT 270-271	89
301	PROTAPE® PUR 301 AS (XLD)	21
310	PROTAPE® PVC 310 (LD)	39
320 AS	PROTAPE® TPE 320 AS (XLD)	37
320 HT	PROTAPE® TPE 320 HT (XLD)	37
	, ,	

Product number	Product description	Page
321	PROTAPE® TPE 321 REINFORCED (LD)	37
322	PROTAPE® PE 322 EC (XLD)	43
326	PROTAPE® TPE 326 MEMORY	65
327 MEMORY	PROTAPE® PUR 327 MEMORY	26
327 PP	PROTAPE® PUR 327 PP	26
330 AS	PROTAPE® PUR 330 AS (LD)	21
330 AS BLACK	PROTAPE® PUR 330 AS BLACK (LD)	21
330 FOOD	PROTAPE® PUR 330 FOOD (LD)	30
330 FOOD-AS	PROTAPE® PUR-INOX 330 FOOD-AS (LD)	30
331	PROTAPE® PUR 331 FOOD (XLD)	29
332	PROTAPE® PUR 332 SE (LD)	67
333 AS	PROTAPE® PUR 333 AS (MD)	21
335	PROTAPE® PUR-C 335 FOOD-AS FLAT	29
341	AIRDUC® PVC 341 (MD)	39
345	AIRDUC® PVC 345 (HD)	39
350 AS	AIRDUC® PUR 350 AS (MD)	22
350 AS BLACK	AIRDUC® PUR 350 AS BLACK (MD)	22
350 AS TWIN COLOR	AIRDUC® PUR 350 AS TWIN COLOR (MD)	22
350 FOOD-AS	AIRDUC® PUR 350 FOOD-AS (MD)	30
351 EC	AIRDUC® PUR 351 EC (MD)	24
351 FOOD	AIRDUC® PUR 351 FOOD (MD)	31
351 FOOD-AS	AIRDUC® PUR-INOX 351 FOOD-AS (MD)	31
351 HT	AIRDUC® PUR 351 HT (MD)	25
351 SWEEPER	AIRDUC® PUR 351 SWEEPER	26
352	AIRDUC® PUR 352 SE (MD)	67
352 RAILWAY	AIRDUC® PUR 352 SE RAILWAY (MD)	67
352 RAILWAY PLUS	AIRDUC® PUR 352 SE RAILWAY PLUS (MD)	67
355 AS	AIRDUC® PUR 355 AS (HD)	22
355 AS TWIN COLOR	AIRDUC® PUR 355 AS TWIN COLOR (HD)	23
355 AS WEAR STRIP	AIRDUC® PUR 355 AS WEAR STRIP (HD)	23
355 EC	AIRDUC® PUR 355 EC (HD)	24
355 EC TWIN COLOR	AIRDUC® PUR 355 EC TWIN COLOR (HD)	24
355 FOOD	AIRDUC® PUR 355 FOOD (HD)	31
355 FOOD-AS	AIRDUC® PUR-INOX 355 FOOD-AS (HD)	32
355 HT	AIRDUC® PUR 355 HT (HD)	25
355 SWEEPER	AIRDUC® PUR 355 SWEEPER	26
355 SWEEPER REINF.	AIRDUC® PUR 355 SWEEPER REINFORCED	27
355 VAC-TRUCK O.	AIRDUC® PUR 355 VAC-TRUCK ORANGE	27
355 VAC-TRUCK REINF.	AIRDUC® PUR 355 VAC-TRUCK REINFORCED	27
356 AS	AIRDUC® PUR 356 AS (XHD)	23
356 EC	AIRDUC® PUR 356 EC (XHD)	25
356 FOOD	AIRDUC® PUR 356 FOOD (XHD)	32
356 FOOD-AS	AIRDUC® PUR-INOX 356 FOOD-AS (XHD)	32
356 FOOD REINF.	AIRDUC® PUR 356 FOOD REINFORCED (XXHD)	33
356 HT	AIRDUC® PUR 356 HT (XHD)	25
357	AIRDUC® PUR 357 VAC-TRUCK	27

Product number	Product description	Page
362 FC	AIRDUC® PE 362 EC (MD)	44
362 FOOD	AIRDUC® PE 362 FOOD (MD)	44
363	AIRDUC® TPE 363 (MD)	37
368 ANTI-BACTERIAL	ISODUC ALU-PES 368 ANTI-BACTERIAL	73
368 ANTI-BACT, PVC	ISODUC PVC 368 ANTI-BACTERIAL	70
368 BLACK	ISODUC PVC 368 BLACK	70
368 GREY	ISODUC PVC 368 GREY	69
368 PFS	ISODUC ALU-PES 368	72
368 SF	ISODUC ALU-PES 368 SE	72
368 SOUND	ISODUC ALU-PES 368 SOUND-INSULATION	71
369 ANTI-BACTERIAL	PROTAPE® ALU-PES 369 ANTI-BACTERIAL	73
369 PFS	PROTAPE® ALU-PES 369	71
369 PES SE	PROTAPE® ALU-PES 369 SE	72
369 PVC	PROTAPE® ALU-PVC 369	71
370	PROTAPE® PUR 370 (LD)	41
371 (LD)	PROTAPE® PVC 371 (LD)	39
371 (MD)	PROTAPE® PVC 371 (MD)	40
371 (MD)	PROTAPE® PVC 371 (HD)	40
371 ANTI-BACTERIAL	PROTAPE® PVC 371 (ND)	69
371 AS	PROTAPE® PVC 371 AS (HD)	40
371 BLACK	PROTAPE® PVC 371 BLACK (XLD)	70
371 GREY	PROTAPE® PVC 371 GREY (XLD)	69
371 HT	PROTAPE® PVC 371 HT (LD)	41
372	SuperFlex PVC 372	44
373	EVA 373	45
373 AS	EVA 373 AS	45
373 FC	EVA 373 FC	45
375	METAL HOSE 375	55
375 HT	METAL HOSE 375 HT	55
376	METAL HOSE INOX 376	55
377 ALU	METAL HOSE ALU 377 - ALUFLEX	73
377 REINF.	METAL HOSE 377 REINFORCED	55
379	NORPLAST® PVC 379 GREEN SUPERELASTIC (HD)	52
380	NORPLAST® PVC 380 GREEN (HD)	52
381 FOOD	BARDUC® PVC 381 FOOD (HD)	47
382 FOOD-AS	BARDUC® PUR-INOX 382 FOOD-AS (XHD)	33
383	NORPLAST® PVC 383 (LD)	51
384	NORPLAST® PVC 384 AS (HD)	51
384 CU	NORPLAST® PVC-CU 384 AS (HD)	51
385 AS	NORPLAST® PUR 385 AS (LD)	49
385 C AS	NORPLAST® PUR-C 385 AS (LD)	49
385 FOOD	NORPLAST* PUR-C 365 AS (LD) NORPLAST* PUR 385 FOOD (LD)	49
386 C AS	NORPLAST® PUR-C 386 AS (XHD)	50
387	NORPLAST* PUR-C 360 AS (XHD)	50
387 C AS	NORPLAST* PUR 367 (AXHD) NORPLAST* PUR-C 387 AS (XXHD)	50
388	NORPLAST* PUR-C 387 AS (AXRD) NORPLAST* PVC 388 SUPERELASTIC (MD)	52
000	NORFLAST PVC 300 SUPERELASTIC (NID)	52

Product number	Product description	Page
389 C AS	NORPLAST® PVC-C 389 AS-SUPERELASTIC WEAR STRIP	53
389 PLUS	NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD)	53
389 WEAR STRIP	NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD)	53
390 ONE	NEO 390 ONE	57
390 TWO	NEO 390 TWO	57
391 ONE	SIL 391 ONE	61
391 TWO	SIL 391 TWO	61
400	NORFLEX® PVC 400	76
401	NORFLEX® PUR 401 FOOD	75
401 WELDING	NORFLEX® PUR 401 WELDING	75
407	NORFLEX® PTFE 407	77
408	NORFLEX® SIL 408	77
440	NORFLEX® PVC 440	76
440 HIGH PRESSURE	NORFLEX® PVC 440 HIGH PRESSURE	76
441	NORFLEX® PUR 441 FOOD	75
441 ROBOTIC	NORFLEX® PUR 441 ROBOTIC	75
448	NORFLEX® SIL 448	77
450	CP HYP 450	57
450 PROTECT	CP HYP 450 PROTECT	65
455	CP PUR 455 FOOD	29
457	CP PE 457	43
457 EC	CP PE 457 EC	43
459	CP VITON® 459 EC	58
460	CP SIL 460	60
461	CP ARAMID 461	60
461 PROTECT	CP ARAMID 461 PROTECT	65
465	CP PVC 465	41
465 EC	CP PVC 465 EC	42
466	CP PVC 466 HT	42
467	CP HiTex 467 WELDING	42
471	CP PTFE/GLASS-INOX 471	59
471 EC	CP PTFE/GLASS-INOX 471 EC	60
472	CP PTFE/HYP-INOX 472	58
472 EC	CP PTFE/HYP-INOX 472 EC	58
475	CP PTFE-INOX 475 FOOD	59
475 EC	CP PTFE-INOX 475 EC	59
476	CP Kapton® 476	61
480	CP HiTex 480	62
481	CP HiTex 481	63
483	CP HiTex 483	63
485	CP HiTex 485	62
486	CP HiTex 486	63
487	CP HiTex 487	62
531	TIMBERDUC® PUR 531 AS (XLD)	35
532	TIMBERDUC® PUR 532 AS (LD)	35
532 CNC	TIMBERDUC® PUR 532 CNC (MD)	35
533	TIMBERDUC® PUR 533 AS (MD)	35

Hosefinder online

real-time

customer portal

24h shipment

Immediate Availability - Instant Delivery service



Products with the NORRES "24 hour" icon leave NORRES or a NORRES branch within the time specified based on the defined wall thickness of



NORRES ships these products in the below mentioned sizes within 48 hours.

5		B:	
Product	I.D.	Dimensions in stock	Icon
	in / mm	m	
PROTAPE® PUR 301 AS (XLD)/or TIMBERDUC® PUR 531 AS (XLD)	2"/ 50-51mm; 2.36"/ 60mm; 3"/ 75-76mm; 80mm; 3.5"/ 89-90mm; 4"/ 100-102mm; 5"/ 125-127mm; 6"/ 150-152mm; 8"/ 200-203mm; 250mm; 300mm	10	24h Shipping
PROTAPE® PUR 330 AS (LD)/ or TIMBERDUC® PUR 532 AS (LD)	40mm; 2"/ 50-51mm; 2.36"/ 60mm; 3"/ 75-76mm; 80mm; 4"/ 100-102mm; 4.72"/ 120mm; 5"/ 125-127mm; 5.5"/ 140mm; 6"/ 150-152mm; 6.3"/ 160mm; 8"/ 200-203mm	10	24h Shipping
AIRDUC® PUR 350 AS (MD)/or TIMBERDUC® PUR 533 AS (MD)	40mm; 2"/ 50-51mm; 2.36"/ 60mm; 70mm; 3"/ 75-76mm; 80mm; 4"/ 100-102mm; 4.72"/ 120mm; 5"/ 125-127mm; 5.5"/ 140mm; 6"/ 150-152mm; 6.3"/ 160mm; 8"/ 200-203mm; 250mm; 300mm	10	24h Shipping
AIRDUC® PUR 355 AS (HD)	1"/ 25mm; 1.25"/ 32mm; 1.5"/ 38mm; 40mm; 2"/ 50-51mm; 2.36"/ 60mm; 2.5"/ 63-65mm; 70mm; 3"/ 75-76mm; 80mm; 4"/ 100-102mm; 6"/ 150-152mm	10	24h Shipping
AIRDUC® PUR 356 AS (XHD)	40mm; 1.75"/ 44-45mm; 2"/ 50-51mm; 2.36"/ 60mm; 2.5"/ 63-65mm; 3"/ 75-76mm; 80mm; 3.5"/ 89-90mm; 4"/ 100-102mm; 5"/ 125-127mm; 6"/ 150-152mm	10	24h
PROTAPE® PVC 371*	3"/ 75-76mm; 80mm; 4"/ 100-102mm; 5"/ 125-127mm; 6"/ 150-152mm; 6.3"/ 160mm; 7"/ 178-180mm; 8"/ 200-203mm; 10"	10	24h Shipping
NORPLAST® PUR 385 AS*	20mm; 1"/ 25mm; 30mm; 1.25"/ 32mm; 1.36"/ 35mm; 1.5"/ 38mm; 40mm; 1.75"/ 44-45mm; 2"/ 50-51mm; 2.36"/ 60mm; 2.5"/ 63-65mm; 70mm; 3"/ 75-76mm; 80mm; 3.5"/ 89-90mm; 4"/ 100-102mm; 110mm; 4.72"/ 120mm; 5"/ 125-127mm; 130mm; 5.5"/ 140mm; 6"/ 150-152mm	10 20	24h Shipping
AIRDUC® TPE 363 (MD)	1.5"/ 38mm; 40mm; 2"/ 50-51mm; 2.36"/ 60mm; 3"/ 75-76mm; 80mm; 4"/ 100-102mm	10	24h Shipping
SIL 391 TWO	1"/ 25mm;1.5"/ 38mm; 1.75"/ 44-45mm; 2"/ 50-51mm; 2.5"/ 63-65mm; 3"/ 75-76mm; 80mm; 3.5"/ 89-90mm; 4"/ 100-102mm	4	24h Shipping
EVA 373 AS	1*/ 25mm; 1.25*/ 32mm; 1.36*/ 35mm; 1.5*/ 38mm; 40mm; 1.75*/ 44-45mm; 2*/ 50-51mm; 2.36*/ 60mm	30	24h Shipping
CP 450 - 487	1.5"/ 38mm; 40; 2"/ 50-51mm; 2.36"/ 60mm; 2.5"/ 63-65mm; 3"/ 75-76mm; 80mm; 3.5"/ 89-90mm; 4"/ 100-102mm; 110mm; 4.5"/ 114-115mm; 4.72"/ 120mm; 5"/ 125-127mm; 5.5"/ 140mm; 6"/ 150-152mm; 6.3"/ 160mm; 170mm; 7"/ 178-180mm; 8"/ 200-203mm; 225mm; 250mm; 300mm; 350mm; 400mm; 450mm; 500mm; 600mm; 700mm; 800mm; 900mm; 1000mm	3 6	48h Shipping

^{*}a product of the PROTAPE 371 series/NORPLAST PUR 385 series.

Assembly services



48 hours assembly service: NORRES assembles the items marked with the "48 hour" icon within this time frame (max. of 10 pieces per order).



Service Approach

Converter 48h assembly

Always there for you - at norres.com

- The NORRES Website Product information und stock enquiry in real-time
- The NORRES Shop NORRES customers are able to order their products conveniently via online store
- The NORRES Hose Finder Filter by means of i.e. conveying medium, properties, area of application, etc. your suitable product directly on the product overview pages
- The NORRES Service principle: We keep our promise despatch within 24 hours from our NORRES sites, 48 hours assembly time - for selective products and product lines



NORRES - always up-to-date

Direct access to the product page via QR code - Here you will find:

- All applications, properties and delivery variants at a glance
- Availability
- Certificates, approvals and declarations of conformity
- Assembly information and installation guidelines
- All common dimensions and lengths at a glance
- · Technical specifications such as pressure, bending radius and weight
- Suitable accessories
- ... and of course: Always up-to-date

NORRES - services for our customers

- Expert advise and Quality
- Modern logistic concepts (e.g. dropshipping)
- Efficient service packages for customer-specific concepts with sales value
- Specialist custom made solutions for all types of hoses to meet customer requirements
- Extensive product range for all industries
- Assembly service for numerous connecting elements and couplings



NORRES - Technical online

- Constructions
 Technical videos
- Technical information:
- CE certification
- Ingress Protection
- Thread standards
- Food regulatory approvals
- VDA listina
- Electrical characteristics
- Electrostatic charging data
- TRGS 727 FAQ
- Pressure ratings
- Cut length and assembly information
- Installation guidelines
- Chemical resistance table
- Technical terms and definitions
- Loss of strength at higher temperatures



Pre-PUR®: NORRES uses a special polyurethane mixture for several of its hoses that sets them apart from the majority of commercially available products as follows:

- Increased material strength
- Higher abrasion resistance
- Improved chemical resistance
- Higher softening points
- Increased heat resistance
- Increased flexibility at low temperatures



Abrasion resistant: NORRES hoses with this symbol have been specially developed to transport very abrasive media while maintaining a long service life.

- Precise construction for optimal strength reinforcement
- Specific materials chosen to provide superior material strength and abrasion resistance



Crush resistant: NORRES hoses with this symbol are able to resist crushing either partially or completely when driven over or stepped on.

Smooth interior: NORRES hoses bearing

this icon have optimal flow properties and offer the following advantages:

Low pressure loss (reduced blower

power and lower operating costs)

good recovery properties

Very high delivery rate

Gentler material transport



+25%

Glass/fork symbol: NORRES hoses bearina this symbol have been issued with an official approval from an independent testing institute for use in food applications in accordance with the EU Directive.

the hose length that suits your needs when

production time is not an option.



Special wire adhesion: Hoses manufactured using our special, highly advanced, multistage adhesion process are marked with this symbol. The exceptionally long service life realised with these products - even when subjected to severe combined loads. - would otherwise remain unattainable.

Antistatic and electrically conductive hoses:

According to the new ATEX Directive, hoses

with a discharge-capable (antistatic <109 Ω)

or electrically conductive (<10 3 Ω to <10 6 Ω)

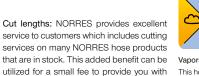
wall should be used for combustible bulk

materials as well as in hazardous areas.

Please comply with all relevant regulations

and standards and refer to the Technical

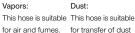
Appendix for more details.





Medium: With our new icon "media" you can select the correct hose for any application at a glance. This icon "media" will help distinguish between different media such as vapors, liquids, dust and heavy abrasives. This innovative icon enables customers to easily select the correct hose or system for their application.







for transfer of dust and powders.



Liquids: This hose is suitable. This hose is suitable for liquid transfer. abrasive media such



as chips, shavings

and grains.



High flexibility: This symbol is only used for NORRES hoses that require minimal force to flex

Microbe-resistant: Not all plastics with-

stand microbes. This is a critical element

for extended contact with soil, organic

substances or heavy contamination in

conditions favorable to microbe growth.

The chemical structure of this material is

modified for resistance to microbial attack.

■ Low wear and therefore longer service life



Patent pending: Many NORRES hoses and hose systems are in the process of an patent application. This icon shows NORRES' continued effort to assist its partners and customers with unique products and solutions in the field of technical hoses in the future.



Patented: NORRES is one of the leading trendsetters and manufacturer of high quality technical hoses. A variety of NORRES hoses and systems have internationally registered patents. These products are marked with the NORRES "Patented Icon" providing NORRES customers unique products and solutions in the technical hose field. Customers can easily identify these hoses at a glance with this icon.



XI D super-light

LD light MD medium-heavy

HD heavy

super-heavy XHD XXHD = extremely heavy

AS antistatic

electrically conductive

нт high temperature

FOOD = food safe

INOX = stainless steel spiral



Microbe

Approvals for use with foodstuffs: NORRES hoses with this symbol have one or more national and/or international approvals and certificates of conformity that allow them to be used in food applications.



Permanently antistatic: Thanks to a novel, innovative material from NORRES, all hoses marked with this symbol are permanently antistatic (<109 Ω).



Flame retardant: NORRES hoses with the flame retardant icon have one or more national and/or international approvals classifying them as flame retardant or selfextinguishing.



HT-PUR: Pre-PUR® is improved even further with an innovative and patented process that increases the heat resistance and life of the hose.



RETARDANT

Partially coloured: Thanks to our patented production method, transparent hoses can be manufactured with a colour stripe along the helix in a specified color. Strengthen your market position by utilising your corporate colours.



Phthalate-free: NORRES hoses with this symbol are 100% free of phthalates and softener.



Pre-PUR® Pre-PUR® makes the difference

Polyurethanes are not all the same!

As with all raw materials and finished goods, there are large differences in quality here as well.

For many of its hoses, NORRES uses a special mixture called Pre-PUR®, containing an ester-polyurethane or an ether-polyurethane. Compared to many other plastics, rubber formulations and "simple" polyurethanes, the block copolymers, which consist of hard and soft Pre-PUR® segments, have superior properties. The hard segments of Pre-PUR® provide extremely high mechanical stability, while at the same time the soft segments give the material high flexibility and dynamic load capacity.

Our hoses made from Pre-PUR® raw materials differ as follows from many of the NORRES Pre-PUR® contains special stabilisers for hose technology, developed hoses commercially available:

- NORRES Pre-PUR® consists of special and high-quality, premium ester- and
 - Choosing a polyurethane just one level of quality lower can cause a reduction of more than 30% in abrasion resistance.

The use of high-purity raw materials and a narrow tolerance range ensure a high level of quality.

- excellent mechanical stability
- low abrasion
- excellent chemical and hydrolytic resistance
- NORRES Pre-PUR® has extremely long molecular chains (high molecular weight and a lot of crystalline domains and morphology). During chemical, hydrolytic and thermal degradation, molecular chains are generally shortened as a result of chain scission. Consequently, longer molecular chains generally result in longer service life. The length of the molecular chains is also a determining factor in the softening point of a hose. Thus products made from Pre-PUR® have above average residual strength when subjected to heat, while at the same time demonstrating better flexibility at low temperatures.
 - improved chemical and hydrolytic stability
 - higher softening points
 - greater residual strength at high temperatures
 - higher compression strength
 - greater safety due to material stability
 - better hot air aging properties
 - better low temperature flexibility
 - lower "bending force" when cold
 - lower risk of bending fracture at low temperatures

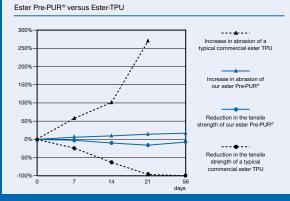
- in partnership with our raw material suppliers. Without these additives, hoses generally are more vulnerable to chemical, hydrolytic and thermal attack and occasionally wear out significantly faster.
 - improved chemical and hydrolytic stability
 - improved oxidation resistance
 - better hot air aging properties
 - improved resistance to weathering

 $The \,ether-polyure than e\, Pre-PUR^{\tiny @}\, used in\, many of our hoses \, has the following \, advantages$ over ester-polyurethane Pre-PUR® (and also over other ester-polyurethanes):

- Resistant to microbes
 - This is critical for extended contact with soil or similar substances or heavy contamination under conditions favourable to microbes. The chemical structure of ether-polyurethanes gives the materials permanent resistance to microbial attack. We believe this is clearly a better solution than ester-polyurethanes that are often stabilized with for health not completely harmless additives for this purpose. With these ester-polyurethanes there is a risk that the additive will leach out, causing the level to fall below that required for protection as the additive migrates to the surface of the hose and comes in contact with the user and the material transported.
- Resistant to hydrolysis
- This is critical for wet or humid applications at higher temperatures and for use in tropical climates
- Its chemical stability is far superior to ester-polyurethanes
- Its flexibility at low temperatures is superior to comparable ester-polyurethanes

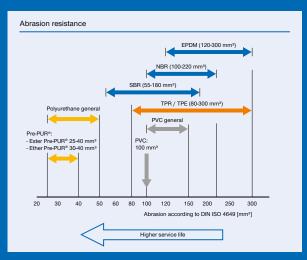
In summary:

- longer service life
- greater safety
- significant added value and greater benefits



An example of stability:
Our high-quality Pre-PUR® raw materials with special stabilizers demonstrate considerably better stability and significantly longer service life than can be obtained

mechanism of chemical degradation of polyester-polyurethane is frequently hydrolysis of the polyester chains. Our ester Pre-PUR® is shown in Figure 1, compared with an other typical commercial ester TPU.



Example of abrasion resistance:

According to standard tests, the abrasion resistance of our Pre-PUR® polyurethanes is about two and a half to five times higher than for many rubber raw materials and about three to four times higher than for many soft PVC's (measured at 20°C). In applications, the differences are frequently even greater, because the excellent damping and impact resilience of Pre-PUR® polyurethanes does not come into play with the standard test method.

Food and Pharma

Silo, silo vehicle/ silo truck, tanker/ tank truck: Conveying of dry foods, e.g. rice, cereals, sugar, milk powder, powders, coffee, tea, grains, flour, frozen foods

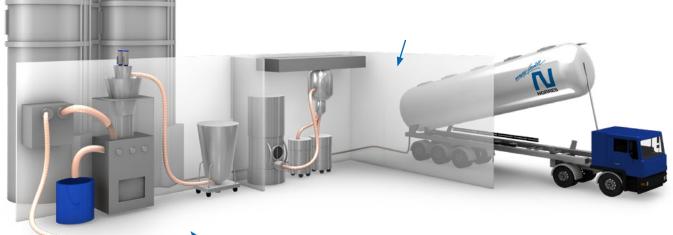
Recommended by NORRES customers:

AIRDUC® PUR-INOX 356 FOOD-AS (XHD)

Proven Alternatives:

AIRDUC® PUR 356 FOOD (XHD)
AIRDUC® PUR 356 FOOD REINFORCED (XXHD)

BARDUC® PUR-INOX 382 FOOD-AS (XHD) NORPLAST® PUR-C 386 AS (XHD) NORPLAST® PUR 387 (XXHD) NORPLAST® PUR-C 387 AS (XXHD)



 $Vacuum\ conveying\ device, vacuum\ hopper,\ suction\ conveyor,\ dosing\ system,\ pelleting\ machine/tablet\ press$

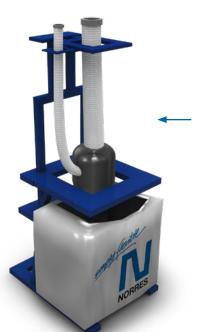
Recommended by NORRES customers:

AIRDUC® PUR-INOX 355 FOOD-AS (HD)

Proven Alternatives:

AIRDUC® PUR 351 FOOD (MD)
AIRDUC® PUR-INOX 351 FOOD-AS (MD)

AIRDUC® PUR 355 FOOD (HD)
AIRDUC® PUR 356 FOOD (XHD)
AIRDUC® PUR-INOX 356 FOOD-AS (XHD)
BARDUC® PUR-INOX 382 FOOD-AS (XHD)
BARDUC® PVC 381 FOOD (HD)



Mixer, dryer, packaging machine, bulk-bag (big bag)-charging and discharging, mill

Recommended by NORRES customers:

PROTAPE® PUR-C 335 FOOD-AS FLAT AIRDUC® PUR-INOX 355 FOOD-AS (HD)

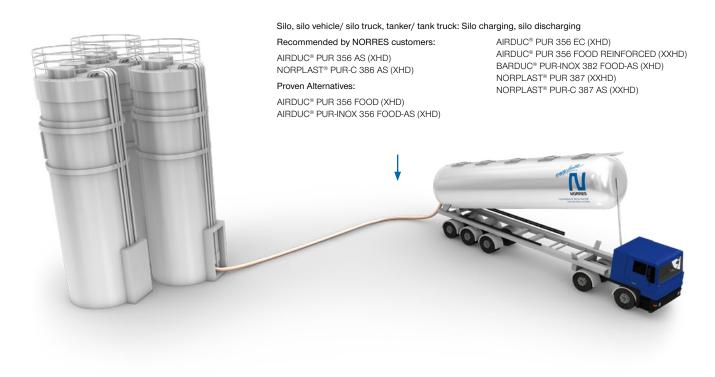
Proven Alternatives:

CP PUR 455 FOOD
PROTAPE® PUR 330 FOOD (LD)
AIRDUC® PUR 350 FOOD-AS (MD)
AIRDUC® PUR 351 FOOD (MD)
AIRDUC® PUR-INOX 351 FOOD-AS (MD)
AIRDUC® PUR 355 FOOD (HD)
AIRDUC® PUR 356 FOOD (XHD)
AIRDUC® PUR-INOX 356 FOOD-AS (XHD)

AIRDUC® PE 362 FOOD (MD) CP PTFE-INOX 475 FOOD



Raw material processing



Screening machine/ sifting machine, vibration screening machine, tumbler screening machine, plansifter, windsifter

Recommended by NORRES customers:

PROTAPE® PUR-C 335 FOOD-AS FLAT

Proven Alternatives:

PROTAPE® PUR 301 AS (XLD)
PROTAPE® PUR 330 AS (LD)
PROTAPE® PUR 330 FOOD (LD)
PROTAPE® PUR-INOX 330 FOOD-AS (LD)



Vehicle exhaust gas system

Vehicle exhaust gas extraction system: Hose reel, floorgrid and underfloor extraction system

Recommended by NORRES customers:

PROTAPE® TPE 326 MEMORY

Proven Alternatives:

PROTAPE® TPE 325 WEAR STRIP CP HYP 450 PROTECT CP ARAMID 461 PROTECT CP HiTex 481



Engine test bench, exhaust gas measurement Recommended by NORRES customers:

CP HiTex 481

CP Kapton® 476

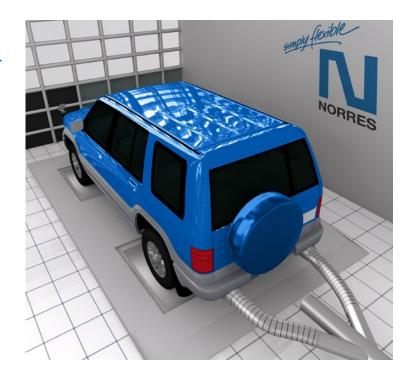
CP HiTex 486

CP HiTex 483

Proven Alternatives:

CP HiTex 485

CP HiTex 487



Automotive/Vehicle industry

Industrial robot, robotic, welding equipment, welding robot, welding gun: Welding spot resistant hose, hose for dresspack for media as water and air

Recommended by NORRES customers:

NORFLEX® PUR 441 ROBOTIC

Proven Alternatives:

NORFLEX® PUR 401 WELDING



Plastics industry

Silo, silo vehicle/silo truck, tanker/tank truck: Silo charging, silo discharging

Recommended by NORRES customers:

AIRDUC® PUR 356 AS (XHD) NORPLAST® PUR-C 386 AS (XHD)

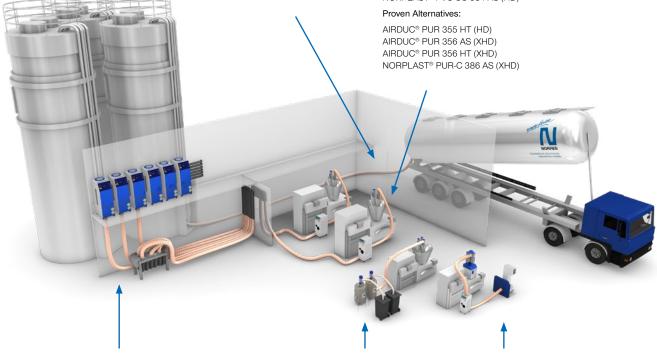
Proven Alternatives:

AIRDUC® PUR 356 FOOD REINFORCED (XXHD)

Conveying of granulates and powders: Granulate conveying device, vacuum hopper/conveyor, suction conveyor, dosing system, bulk-bag (big bag)-charging and discharging, shredder, mill, extruder, injection moulding machine

Recommended by NORRES customers:

AIRDUC® PUR 355 AS (HD) AIRDUC® PUR 355 AS WEAR STRIP (HD) BARDUC® PVC 381 FOOD (HD) NORPLAST® PVC-CU 384 AS (HD)



Granulate/ plastic dryer, hot air dryer

PROTAPE® TPE 321 REINFORCED (LD) AIRDUC® TPE 363 (MD) NEO 390 ONE NEO 390 TWO SIL 391 ONE SIL 391 TWO

Injection moulding tool cooling, cooling water supply

NORFLEX® PUR 441 FOOD NORFLEX® PUR 441 ROBOTIC NORFLEX® PVC 440

NORFLEX® PVC 440 HIGH PRESSURE

Film blowing machine, cooling air at the extrusion tool

AIRDUC® PUR 351 HT (MD)
AIRDUC® PUR 355 HT (HD)
PROTAPE® TPE 320 AS (XLD)
PROTAPE® TPE 320 HT (XLD)
PROTAPE® TPE 321 REINFORCED (LD)
AIRDUC® TPE 363 (MD)
NORFLEX® PUR 441 FOOD
NEO 390 ONE
NEO 390 TWO

Suction and Disposal Vehicles

Suction excavator

Recommended by NORRES customers:

AIRDUC® PUR 356 AS (XHD)

Proven Alternatives:

AIRDUC® PUR 357 VAC-TRUCK AIRDUC® PUR 355 VAC-TRUCK ORANGE



Suction vehicle:

Sewer cleaning, sewage cleaning

Recommended by NORRES customers:

NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD)

Proven Alternatives:

AIRDUC® PUR 356 AS (XHD)

NORPLAST® PVC 379 GREEN SUPERELASTIC (HD)

NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD)

Vacuum truck, suction vehicle: Roof gravelling, roof gravel conveying

Recommended by NORRES customers:

AIRDUC® PUR 356 AS (XHD) NORPLAST® PUR 387 (XXHD)

Proven Alternatives:

AIRDUC® PUR 355 VAC-TRUCK REINFORCED

Vacuum truck, suction vehicle, dry suction truck: Industrial cleaning, furnace cleaning



Industrial vacuum cleaners

Industrial vacuum cleaners, vacuum cleaners

Recommended by NORRES customers:

AIRDUC® PUR 355 AS (HD) AIRDUC® PUR 355 AS WEAR STRIP (HD) AIRDUC® PUR 355 EC (HD)

Proven Alternatives:

AIRDUC® PUR-INOX 351 FOOD-AS (MD) AIRDUC® PUR-INOX 355 FOOD-AS (HD) AIRDUC® PUR 356 AS (XHD) SuperFlex 372 EVA 373 EVA 373 AS EVA 373 EC





Fume and dust extraction

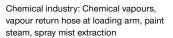
Extraction unit, dedusting system, filter system, oil mist extraction

Recommended by NORRES customers:

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) AIRDUC® PUR 350 AS (MD) PROTAPE® PVC 371 (HD) PROTAPE® PVC 371 AS (HD)

Proven Alternatives:

PROTAPE® PUR 330 AS BLACK (LD) AIRDUC® PUR 350 AS BLACK (MD) AIRDUC® PUR 351 FOOD (MD) PROTAPE® PVC 310 (LD) AIRDUC® PVC 341 (MD)

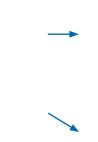


Recommended by NORRES customers:

PROTAPE® PE 322 EC (XLD)

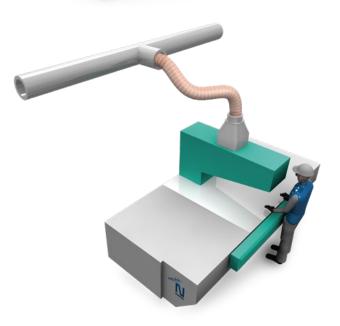
Proven Alternatives:

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) AIRDUC® PUR 350 AS (MD) PROTAPE® TPE 320 HT (XLD) PROTAPE® PVC 371 (HD) PROTAPE® PVC 371 AS (HD) AIRDUC® PE 362 EC (MD) CP PE 457 CP PE 457 EC CP HYP 450 CP VITON® 459 EC CP PTFE-INOX 475 FOOD CP PTFE-INOX 475 EC CP PTFE/HYP-INOX 472 CP PTFE/HYP-INOX 472 EC CP PTFE/GLASS-INOX 471 CP PTFE/GLASS-INOX 471 EC CP Kapton® 476



Galvanic extraction

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) PROTAPE® PVC 310 (LD) AIRDUC® PVC 341 (MD) AIRDUC® PVC 345 (HD) PROTAPE® PVC 371 (HD) PROTAPE® PVC 371 AS (HD)





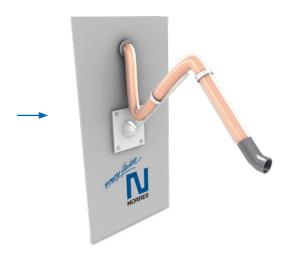
Extraction arm

Recommended by NORRES customers:

PROTAPE® PVC 371 (LD) PROTAPE® PVC 371 HT (LD) PROTAPE® PVC 371 (MD)

Proven Alternatives:

PROTAPE® PUR 330 AS (LD)
PROTAPE® PUR-INOX 330 FOOD-AS (LD)
PROTAPE® PE 322 EC (XLD)
CP PE 457 EC
PROTAPE® PUR 370 (LD)
CP PVC 465
CP PVC 466 HT
CP HiTex 467 WELDING
CP PTFE-INOX 475 FOOD



Welding fume extraction

Recommended by NORRES customers:

PROTAPE® PVC 371 HT (LD) CP HiTex 467 WELDING

Proven Alternatives:

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) PROTAPE® PUR 370 (LD) PROTAPE® PVC 371 (LD) PROTAPE® PVC 371 (MD) PROTAPE® ALU-PVC 369 CP PVC 465 CP PVC 466 HT





Shot blasting/sand blasting

Surface preparation: Shot blasting/sand blasting recovery e.g. at blasting chamber, ship yard, stripping machine, floor preparation machine, grinding machine

Recommended by NORRES customers:

AIRDUC® PUR 355 AS (HD) AIRDUC® PUR 355 AS WEAR STRIP (HD)

Proven Alternatives:

PROTAPE® PUR 330 AS (LD) AIRDUC® PUR 350 AS (MD) AIRDUC® PUR 351 FOOD (MD) AIRDUC® PUR 356 AS (XHD)



Wood processing industry

Wood dust extraction, wood chips: Furniture production, saw mill

Recommended by NORRES customers:

TIMBERDUC® PUR 531 AS (XLD) TIMBERDUC® PUR 532 AS (LD) TIMBERDUC® PUR 532 CNC (MD) TIMBERDUC® PUR 533 AS (MD)

Proven Alternatives:

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) AIRDUC® PUR 350 AS (MD) AIRDUC® PUR 355 AS (HD) METAL HOSE 375 METAL HOSE 375 HT METAL HOSE INOX 376



CNC machine, CNC machining center (especially for fast moving systems)

Recommended by NORRES customers:

TIMBERDUC® PUR 532 CNC (MD)

Proven Alternatives:

TIMBERDUC® PUR 531 AS (XLD) PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD)

Wood dust extraction: Vertical panel saw, saw, woodworking machine, edge processing machine, parquet flooring grinding machine

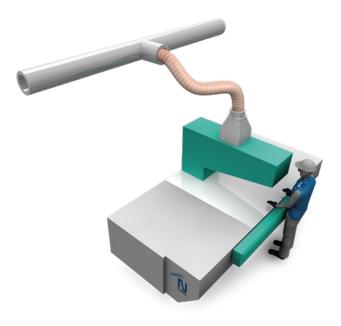
Recommended by NORRES customers:

TIMBERDUC® PUR 532 AS (LD) TIMBERDUC® PUR 533 AS (MD)

Proven Alternatives:

PROTAPE® PUR 301 AS (XLD) PROTAPE® PUR 330 AS (LD) AIRDUC® PUR 350 AS (MD) AIRDUC® PUR 355 AS (HD)

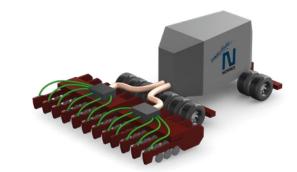




Agricultural industry

Conveying of seed and fertilizers: Seeding machine, seed drill, drilling machine

AIRDUC® PUR 355 AS (HD)
AIRDUC® PUR 355 AS WEAR STRIP (HD)
AIRDUC® PUR 355 FOOD (HD)
NORPLAST® PVC 379 GREEN SUPERELASTIC (HD)



Pneumatic grain conveyer

Recommended by NORRES customers:

AIRDUC® PUR 355 AS (HD) AIRDUC® PUR 355 AS WEAR STRIP (HD)

Proven Alternatives:

AIRDUC® PUR 355 FOOD (HD) AIRDUC® PUR 356 AS (XHD) AIRDUC® PUR 356 FOOD (XHD)



Irrigation, fertilizers, insecticides

BARDUC® PVC 381 FOOD (HD)

NORPLAST® PVC 383 WEAR STRIP (LD)

NORPLAST® PVC 388 SUPERELASTIC (MD)

NORPLAST® PVC 380 GREEN (HD)

NORPLAST® PVC 379 GREEN SUPERELASTIC (HD)

NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD)

NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD)

NORPLEST® PVC 440 HIGH PRESSURE



High pressure spraying hose e.g. for pesticides

NORFLEX® PUR 441 ROBOTIC NORFLEX® PVC 440 HIGH PRESSURE



Manure spreader, slurry spreader, slurry tanker

NORPLAST® PVC 379 GREEN SUPERELASTIC (HD) NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD) NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD)



Animal stall, animal shed: Barn ventilation

PROTAPE® PUR 301 AS (XLD)
PROTAPE® PUR 330 AS (LD)
PROTAPE® PVC 310 (LD)
PROTAPE® PVC 371 (LD)
PROTAPE® PVC 371 (MD)



Animal stall, animal shed: Feedstuff conveying, feedstuff plant, animal feed transport

AIRDUC® PUR 351 FOOD (MD) AIRDUC® PUR 355 FOOD (HD) NORPLAST® PUR 387 (XXHD)



Sweeping and cleaning machines

Municipal vehicle: Sweeper, sweeping machine

Recommended by NORRES customers:

AIRDUC® PUR 350 AS (MD)

AIRDUC® PUR 351 FOOD (MD) AIRDUC® PUR 355 AS (HD)

AIRDUC® PUR 355 AS WEAR STRIP (HD)

AIRDUC® PUR 351 SWEEPER AIRDUC® PUR 355 SWEEPER

AIRDUC® PUR 355 SWEEPER REINFORCED

Proven Alternatives:

PROTAPE® PUR 327 MEMORY PROTAPE® PUR 327 PP

AIRDUC® PUR 355 VAC-TRUCK ORANGE





Municipal vehicle: Lawn mower, slope mower, leaf blower/leaf collector

Recommended by NORRES customers:

AIRDUC® PUR 350 AS (MD) AIRDUC® PUR 351 FOOD (MD)

Proven Alternatives:

PROTAPE® PUR 327 MEMORY PROTAPE® PUR 327 PP AIRDUC® PUR 355 AS (HD)









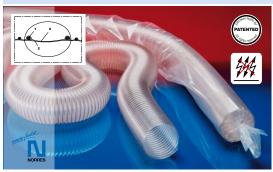


Polyurethane (Pre-PUR®) suction hoses and conveying hoses

Content

PROTAPE® PUR 301 AS (XLD) Antistatic polyurethane hose, super-light, microbe resistant + flame-retardant	40°C to 90°C	21
PROTAPE® PUR 330 AS (LD) Antistatic polyurethane hose, light, microbe resistant + flame-retardant	40°C to 90°C	21
PROTAPE® PUR 330 AS BLACK (LD) Antistatic polyurethane hose, light, black	40°C to 90°C	21
PROTAPE® PUR 333 AS (MD) Antistatic polyurethane hose, medium-heavy, microbe resistant + flame-retardant	40°C to 90°C	21
AIRDUC® PUR 350 AS (MD) Antistatic polyurethane hose, medium-heavy, microbe resistant + flame-retardant	40°C to 90°C	22
AIRDUC® PUR 350 AS BLACK (MD) Antistatic polyurethane hose, medium-heavy, black	40°C to 90°C	22
AIRDUC® PUR 350 AS TWIN COLOR (MD) Antistatic polyurethane hose, medium-heavy, microbe resistant	40°C to 90°C	22
AIRDUC® PUR 355 AS (HD) Antistatic polyurethane hose, heavy, microbe resistant + flame-retardant	40°C to 90°C	22
AIRDUC® PUR 355 AS WEAR STRIP (HD) Antistatic polyurethane hose, heavy, microbe resistant + flame-retardant + wear strip	40°C to 90°C	23
AIRDUC® PUR 355 AS TWIN COLOR (HD) Antistatic polyurethane hose, heavy, microbe resistant	40°C to 90°C	23
AIRDUC® PUR 356 AS (XHD) Antistatic polyurethane hose, super-heavy, microbe resistant	40°C to 90°C	23
AIRDUC® PUR 351 EC (MD) Electrically conductive polyurethane hose, medium-heavy	40°C to 90°C	24
AIRDUC® PUR 355 EC (HD) Electrically conductive polyurethane hose, heavy	40°C to 90°C	24
AIRDUC® PUR 355 EC TWIN COLOR (HD) Electrically conductive polyurethane hose, heavy, two-coloured	40°C to 90°C	24
AIRDUC® PUR 356 EC (XHD) Electrically conductive polyurethane hose, super-heavy	40°C to 90°C	25
AIRDUC® PUR 351 HT (MD) High-temperature hose, medium-heavy	40°C to 150°C	25
AIRDUC® PUR 355 HT (HD) High-temperature hose, heavy	40°C to 150°C	25
AIRDUC® PUR 356 HT (XHD) High-temperature hose, super-heavy	40°C to 150°C	25
PROTAPE® PUR 327 MEMORY Crush resistant hose	40°C to 90°C	26
PROTAPE® PUR 327 PP Crush resistant hose	40°C to 90°C	26
AIRDUC® PUR 351 SWEEPER Sweeper hose, medium-heavy, exterior folds, very flexible	40°C to 90°C	26
AIRDUC® PUR 355 SWEEPER Sweeper hose, heavy, exterior folds, very flexible	40°C to 90°C	26
AIRDUC® PUR 355 SWEEPER REINFORCED Sweeper hose, heavy and reinforced, interior folds	40°C to 90°C	27
AIRDUC® PUR 355 VAC-TRUCK ORANGE Vacuum truck hose, heavy and reinforced, very flexible	40°C to 90°C	27
AIRDUC® PUR 355 VAC-TRUCK REINFORCED Vacuum truck hose, heavy and reinforced	40°C to 90°C	27
AIRDUC® PUR 357 VAC-TRUCK Vacuum truck hose, super-heavy and extremely reinforced	40°C to 90°C	27

PROTAPE® PUR 301 AS (XLD)



ideal for: extraction units, extraction arms, ventilation, filter systems

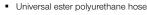












- super-light weight
- microbe resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: UL94-HB
- flame-retardant according to: DIN 4102-B1
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

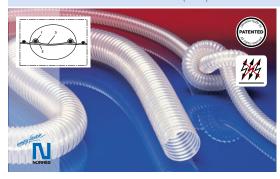
Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: 0,4mm

Ø: 1.5"/38mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

PROTAPE® PUR 330 AS (LD)



ideal for: extraction units, extraction arms, ventilation, filter systems



- lightweight and reinforced
- microbe resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: DIN 4102-B1
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: permanently antistatic premium esterpolyurethane (Pre-PUR®)

Wall thickness: 0,6mm

Ø: 1"/25mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



PROTAPE® PUR 330 AS BLACK (LD)



ideal for: extraction units, extraction arms, ventilation, filter systems, leaf blowers

- Universal ester polyurethane hose
- lightweight and reinforced
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: permanently antistatic premium esterpolyurethane (Pre-PUR®)

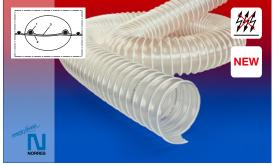
Wall thickness: 0.6mm

Ø: 1.57"/40mm - 8"/200-203mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



PROTAPE® PUR 333 AS (MD)



ideal for: extraction units

- Universal ester polyurethane hose
- medium-heavy duty
- increased pressure and vacuum resistance
- microbe resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- antistatic approx. $10^9\,\Omega$
- -40°C to +90°C (+125°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; plastic coated spring steel wire; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

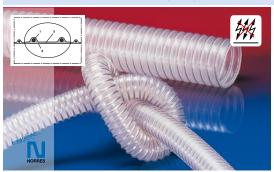
Wall thickness: 0,9mm

Ø: 1.57"/40mm - 11.8"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



AIRDUC® PUR 350 AS (MD)



ideal for: extraction units, leaf blowers, mowing machines











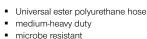












good resistance to oil, gasoline and chemicals

very good low temperature flexibility
 flame-retardant according to: UL94-V2 & DIN 4102-B1

conforms to the safety regulations of the German Wood Trade Association

■ antistatic <10⁹ Ω

■ -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: 0,7mm

Ø: 1"/25mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

AIRDUC® PUR 350 AS BLACK (MD)



ideal for: extraction units, leaf blowers, mowing machines

Universal ester polyurethane hose

- medium-heavy duty
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- antistatic <10⁹ Ω
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: 0,7mm

Ø: 1.57"/40mm - 11.8"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

AIRDUC® PUR 350 AS TWIN COLOR (MD)



ideal for: extraction units, leaf blowers, mowing machines

- Universal ester polyurethane hose
- medium-heavy duty
- microbe resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- two-coloured
- antistatic <10⁹ Ω
- -40°C to +90°C (+125°C)

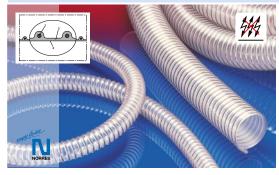
Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall

Wall thickness: 0,7mm

Ø: 1.25"/32mm - 8"/200-203mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

AIRDUC® PUR 355 AS (HD)



ideal for: granulate conveying, industrial vacuum cleaners, printed circuit board drilling machines (PCB), offset printing machines, pneumatic grain conveyer, seeder

Universal ester polyurethane hose

- heavy duty
- increased pressure and vacuum resistance
- microbe resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: UL94-V2 & DIN 4102-B1
- antistatic <10⁹ Ω
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: 1,5mm

Ø: 0.5"/13mm - 19.7"/500mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 240+241, 242, 243, 244, 245 VAC-TRUCK, 245, 246, 223, 270-271



AIRDUC® PUR 355 AS WEAR STRIP (HD)















ideal for: industrial vacuum cleaners

- Universal ester polyurethane hose
- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- heavy duty
- increased pressure and vacuum resistance
- microbe resistant
- good resistance to oil, gasoline and chemicals
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®); abrasion resistant protection profile (wear strip)

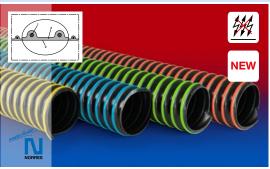
Wall thickness: 1.5mm

Ø: 1.25"/32mm - 2.75"/70mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 240 + 241, 242, 243,

245 CONE FLANGE, 245, 246, 223, 270-271

AIRDUC® PUR 355 AS TWIN COLOR (HD)



ideal for: granulate conveying, industrial vacuum cleaners

- Universal ester polyurethane hose
- heavy duty
- increased pressure and vacuum resistance
- microbe resistant
- good resistance to oil, gasoline and chemicals
- very good low temperature flexibility
- two-coloured
- antistatic <109 O
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: 1.5mm

Ø: 1.25"/32mm - 8"/200-203mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 240 + 241, 242, 243,

245 CONE FLANGE, 245, 246, 223, 270-271

AIRDUC® PUR 356 AS (XHD)



ideal for: roof gravelling, granulate conveying, suction trucks, suction excavators, silos, tankers, dry suction trucks







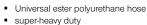












- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- microbe resistant
- good resistance to oil, gasoline and chemicals
- antistatic <109 O
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2,0 - 2,5mm

Ø: 1.25"/32mm - 11.8"/300mm

Accessories: 216, 211, 228, 231, 232, 233, 234, 240 + 241, 242, 243, 245 CONE FLANGE, 245, 246





AIRDUC® PUR 351 EC (MD)



ideal for: mines, explosion hazard areas, industrial vacuum cleaners

















Electrically conductive polyurethane hose medium-heavy duty

good resistance to oil, gasoline and chemicals

- very good low temperature flexibility
- electrically conductive <10³ Ω -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: electrically conductive premium ester-polyurethane (Pre-PUR®)

Wall thickness: 0,7mm

Ø: 1"/25mm - 9.85"/250mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 233, 234, 240 + 241, 240 EC, 242, 243, 245, 246,

223, 270-271



AIRDUC® PUR 355 EC (HD)



ideal for: explosion hazard areas, industrial vacuum cleaners

Electrically conductive polyurethane hose



- increased pressure and vacuum resistance
- good resistance to oil, gasoline and chemicals
- electrically conductive $<10^3\,\Omega$
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: electrically conductive premium ester-polyurethane (Pre-PUR®)

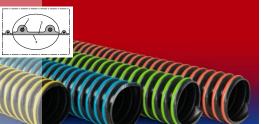


Ø: 1"/25mm - 12.40"/250mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 240 + 241, 240 EC, 242, 243,

245, 246, 223, 270-271

AIRDUC® PUR 355 EC TWIN COLOR (HD)



ideal for: explosion hazard areas, industrial vacuum cleaners



- heavy duty
- increased pressure and vacuum resistance
- good resistance to oil, gasoline and chemicals
- two-coloured
- electrically conductive $<10^3\,\Omega$
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: electrically conductive premium ester-polyurethane (Pre-PUR®)

Wall thickness: 1,4mm

Ø: 1.25"/32mm - 8"/200-203mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 240 + 241, 240 EC, 242, 243, 245, 246, 223, 270-271







AIRDUC® PUR 356 EC (XHD)



ideal for: explosion hazard areas, suction trucks, dry suction trucks











- Electrically conductive polyurethane hose super-heavy duty
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance good resistance to oil, gasoline and chemicals
- electrically conductive $< 10^3 \, \Omega$
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: electrically conductive premium ester-polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2.0 - 2.5mm Ø: 1.5"/38mm - 4"/102mm

Accessories: 216, 211, 228, 231, 232, 233, 234, 240 + 241, 240 EC, 242, 243, 245, 246

AIRDUC® PUR 351 HT (MD)



ideal for: granulate conveying, hot air tube, vacuum pumps

High-temperature hose

- medium-heavy duty
- very good heat resistance (better than comparable TPE and Neoprene)
- good resistance to oil, gasoline and chemicals
- -40°C to +125°C (+150°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: patented special premium high-temperature polyurethane HT-PUR (Pre-PUR®)

Wall thickness: 1,0mm

Ø: 1"/25mm - 8"/200-203mm

Accessories: 212, 212 EC, 217, 213, 228, 270-271



AIRDUC® PUR 355 HT (HD)



ideal for: granulate conveying, hot air tube, vacuum pumps

- High-temperature hose
- very good heat resistance (better than comparable TPE and Neoprene)
- increased pressure and vacuum resistance
- good resistance to oil, gasoline and chemicals
- -40°C to +125°C (+150°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: patented special premium high-temperature polyurethane HT-PUR (Pre-PUR®)

Wall thickness: 1,5mm

Ø: 1"/25mm - 8"/200-203mm

Accessories: 212, 216, 212 FC, 217, 213, 228, 231, 232, 233, 234, 270-271

AIRDUC® PUR 356 HT (XHD)



ideal for: granulate conveying, hot air tube, vacuum pumps

High-temperature hose

- super-heavy duty
- extremely abrasion-resistant with reinforcement underneath wire and
- very good heat resistance (better than comparable TPE and Neoprene)
- very high pressure, vacuum and compression resistance
- good resistance to oil, gasoline and chemicals
- -40°C to +125°C (+150°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: patented special premium high-temperature polyurethane HT-PUR (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2,0 - 2,5mm

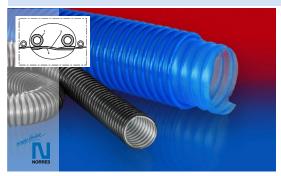
Ø: 2"/50mm - 6"/152mm

Accessories: 216, 211, 228, 231, 232, 233, 234, 245 CONE FLANGE





PROTAPE® PUR 327 MEMORY



ideal for: municipal vehicles, sweepers, leaf blowers, mowing machines, toilet discharging







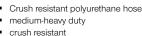












- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

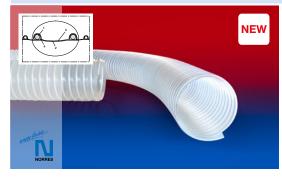
Design, Material: patented PROTAPE® tape hose; special plastic-profile supporting spiral; wall: special premium ether-polyurethane (Pre-PUR®)

Wall thickness: 0.6mm

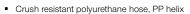
Ø: 2"/50-51mmm - 8"/200-203mm

Accessories: 212, 217, 213, 228, 270-271

PROTAPE® PUR 327 PP



ideal for: municipal vehicles, sweepers, magnetic resonance tomograph, leaf blowers, mowing machines



- super-light weight
- crush resistant
- microbe resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C

Design, Material: patented PROTAPE® tape hose; special plastic-profile supporting spiral; wall: special premium ester-polyurethane (Pre-PUR®); grounding wire

Wall thickness: 0,4mm

Ø: 2"/50mm - 8"/200-203mm

Accessories: 212, 217, 213, 228, 270-271



AIRDUC® PUR 351 SWEEPER



ideal for: municipal vehicles, sweepers, small street sweeping machines

- Sweeper hose
- medium-heavy duty
- protected, flow-optimizing exterior folds
- microbe resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane (Pre-PUR®)

Wall thickness: 1,0mm

Ø: 5.5"/140mm - 12.40"/250mm

Accessories: 211, 240 + 241, 270-271



AIRDUC® PUR 355 SWEEPER



ideal for: large street sweeping machines, municipal vehicles, sweepers

Sweeper hose

- heavy duty
- protected, flow-optimizing exterior folds
- microbe resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane (Pre-PUR®)

Wall thickness: 1,5mm

Ø: 5.5"/140mm - 16"/405-406mm

Accessories: 211, 240 + 241, 270-271



AIRDUC® PUR 355 SWEEPER REINFORCED































ideal for: large street sweeping machines, municipal vehicles, sweepers

- Sweeper hose
- heavy duty and reinforced
- Interior folding
- microbe resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 1,5 - 1,8mm Ø: 8"/200mm - 12"/305mm

Accessories: 211, 240 + 241, 245 CONE FLANGE, 270-271



AIRDUC® PUR 355 VAC-TRUCK ORANGE











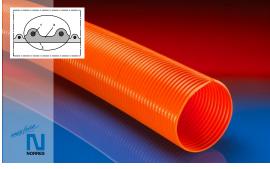












ideal for: slope mowers, municipal vehicles, suction excavators

Vacuum truck hose

- heavy duty and reinforced
- microbe resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2,5mm

Ø: 8"/200mm - 13.85"/352mm

Accessories: 211, 240 + 241, 270-271



AIRDUC® PUR 355 VAC-TRUCK REINFORCED





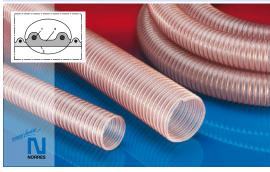












ideal for: roof gravelling, suction trucks, dry suction trucks

- Vacuum truck hose
- heavy duty and reinforced
- extremely abrasion-resistant with reinforcement underneath wire
- increased pressure and vacuum resistance
- good resistance to oil, gasoline and chemicals-
- 40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ester-polyurethane (Pre-PUR®)

Wall thickness: 2,5mm

Ø: 3.35"/85mm - 6"/152mm

Accessories: 211



AIRDUC® PUR 357 VAC-TRUCK



ideal for: rock drills, suction excavators

Vacuum truck hose

- super-heavy duty and extremely reinforced
- extremely abrasion-resistant with extremely thick polyurethane wall
- very high pressure, vacuum and compression resistance
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ester-polyurethane (Pre-PUR®)

Wall thickness: 4 - 5mm

Ø: 4"/100mm - 12.40"/250mm

Accessories: 211



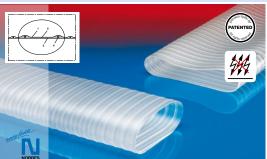


Polyurethane (Pre-PUR®) foodstuff hoses

Content

PROTAPE® PUR-C 335 FOOD-AS FLAT Screening machine hose and compensator, vibration resistant	40°C to 90°C29
CP PUR 455 FOOD Food hose and pharmaceutical hose, super-light	40°C to 90°C29
PROTAPE® PUR 331 FOOD (XLD) Food hose and pharmaceutical hose, light	40°C to 90°C29
PROTAPE® PUR 330 FOOD (LD) Food hose and pharmaceutical hose, light	40°C to 90°C30
PROTAPE® PUR-INOX 330 FOOD-AS (LD) Antistatic food hose and pharmaceutical hose, light, stainless steel (INOX)	40°C to 90°C30
AIRDUC® PUR 350 FOOD-AS (MD) Antistatic food hose and pharmaceutical hose, medium-heavy	40°C to 90°C30
AIRDUC® PUR 351 FOOD (MD) Food hose and pharmaceutical hose, medium-heavy and reinforced	40°C to 90°C31
AIRDUC® PUR-INOX 351 FOOD-AS (MD) Antistatic food and pharmaceutical hose, medium-heavy + reinforced, stainless steel (INOX)	40°C to 90°C31
AIRDUC® PUR 355 FOOD (HD) Food hose and pharmaceutical hose, heavy	40°C to 90°C31
AIRDUC® PUR-INOX 355 FOOD-AS (HD) Antistatic food hose and pharmaceutical hose, heavy, stainless steel (INOX)	40°C to 90°C32
AIRDUC® PUR 356 FOOD (XHD) Food hose and pharmaceutical hose, super-heavy	40°C to 90°C32
AIRDUC® PUR-INOX 356 FOOD-AS (XHD) Antistatic food hose and pharmaceutical hose, super-heavy, stainless steel (INOX)	40°C to 90°C32
AIRDUC® PUR 356 FOOD REINFORCED (XXHD) Food hose and pharmaceutical hose, super-heavy and reinforced	
BARDUC® PUR-INOX 382 FOOD-AS (XHD) Antist. food/pharma hose, super-heavy + reinforced, smooth in-/ exterior, stainless steel (INOX)	

PROTAPE® PUR-C 335 FOOD-AS FLAT



ideal for: foodstuff, pharmaceutical, plansifter, screening machines, tumbler screening machines, vibration screening machines

















- Screening machine hose
- vibration resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; wall interior and exterior smooth; wall: permanently antistatic premium ether-polyurethane (Pre-PUR®); wall interior smooth; grounding wire

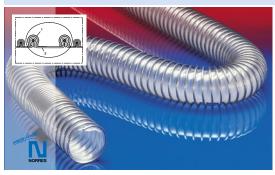
Wall thickness: 1,0mm

Ø: 2"/50mm - 16"/405-406mm

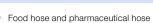
Accessories: 208, 211, 228, 270-271

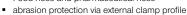






ideal for: extraction units, foodstuff, pharmaceutical





highly flexible + compressible 5:1

- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004, incl. the latest EU-Directive 2015/174, FDA 21 CFR 177.2600
- microbe and hydrolysis resistant
- -40°C to +90°C (+125°C)

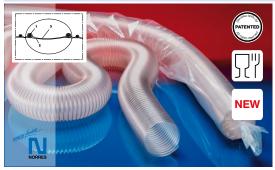
Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: special premium ether-polyurethane (Pre-PUR®)

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



PROTAPE® PUR 331 FOOD (XLD)



ideal for: extraction units, foodstuff, pharmaceutical













Food hose and pharmaceutical hose

- super-light weight
 - Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; extruded tape; wall: special premium ether-polyurethane (Pre-PUR®)

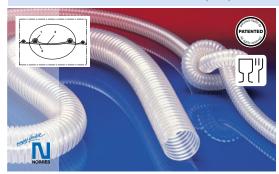
Wall thickness: 0,4mm

Ø: 1.5"/38mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



PROTAPE® PUR 330 FOOD (LD)



ideal for: extraction units, foodstuff, pharmaceutical





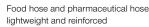












- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- -40°C to +90°C (+125°C)

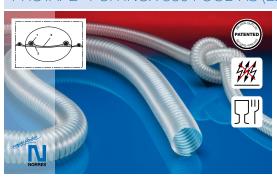
Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: special premium ether-polyurethane (Pre-PUR®)

Wall thickness: 0,6mm

Ø: 1"/25mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

PROTAPE® PUR-INOX 330 FOOD-AS (LD)



ideal for: extraction units, foodstuff, pharmaceutical

- Food hose and pharmaceutical hose
- lightweight and reinforced
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- microbe and hydrolysis resistant
- antistatic <109 Ω
- -40°C to +90°C

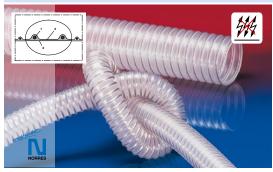
Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; spiral: stainless steel wire (INOX); wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)

Wall thickness: 0,6mm

Ø: 1,5"/38mm - 11.8"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271

AIRDUC® PUR 350 FOOD-AS (MD)



ideal for: extraction units, foodstuff, leaf blowers, pharmaceutical, mowing machines



















- food grade wall, complies with: FDA 21 CFR 177.1680 and 177.2600
- microbe and hydrolysis resistant

Food hose and pharmaceutical hose

- antistatic <109 ○
- -40°C to +90°C (+125°C)

medium-heavy duty



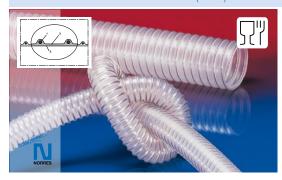
Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)

Wall thickness: 0,7mm

Ø: 1"/25mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 228, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD, 223, 270-271

AIRDUC® PUR 351 FOOD (MD)



ideal for: foodstuff, leaf blowers, pharmaceutical, vacuum conveyor/vacuum conveying devices



- Food hose and pharmaceutical hose
- medium-heavy duty
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- flame-retardant according to: UL94-HB
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ether-polyurethane (Pre-PUR®)

Wall thickness: 1,0mm

Ø: 1"/25mm - 19.7"/500mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD, 223, 270-271

AIRDUC® PUR-INOX 351 FOOD-AS (MD)



ideal for: foodstuff, pharmaceutical, vacuum conveyor/vacuum

- Food hose and pharmaceutical hose
- medium-heavy duty
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- microbe and hydrolysis resistant
- antistatic <109 Ω
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX); wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)

Wall thickness: 1,0mm

Ø: 1"/25mm - 8.9"/225mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD, 223, 270-271

AIRDUC® PUR 355 FOOD (HD)



ideal for: foodstuff, pharmaceutical, seeder, toilet discharging, vacuum conveyor/vacuum conveying devices







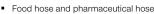












- heavy duty
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- flame-retardant according to: UL94-V2-
- 40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ether-polyurethane (Pre-PUR®)

Wall thickness: 1,5mm

Ø: 0.5"/13mm - 11.8"/300mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD, 223, 270-271





AIRDUC® PUR-INOX 355 FOOD-AS (HD)



















ideal for: foodstuff, pharmaceutical, tablet presses, vacuum conveyor/vacuum conveying devices

- Food hose and pharmaceutical hose
- heavy duty
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- microbe and hydrolysis resistant
- antistatic <10⁹ Ω
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX); wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)

Wall thickness: 1,5mm

Ø: 1"/25mm - 8"/200-203mm

Accessories: 212, 216, 212 EC, 217, 213, 228, 231, 232, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD, 223, 270-271

AIRDUC® PUR 356 FOOD (XHD)



ideal for: foodstuff, pharmaceutical, silos, tankers





- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ether-polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2,0 - 2,5mm

Ø: 1.25"/32mm - 6"/152mm

Accessories: 216, 211, 231, 232, 233, 234, 245 TRI CLAMP, 247, 249, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD, 245 FOOD, 246 FOOD

AIRDUC® PUR-INOX 356 FOOD-AS (XHD)



ideal for: foodstuff, pharmaceutical, silos, tankers















Food hose and pharmaceutical hose

- super-heavy duty
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- microbe and hydrolysis resistant
- antistatic <10⁹ Ω-

40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; spiral: stainless steel wire (INOX); wall: permanently antistatic premium ether-polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 2,0 - 2,5mm

Ø: 1.25"/32mm - 6"/152mm

Accessories: 216, 211, 231, 232, 233, 234, 240 + 241 FOOD, 242, 243 FOOD, 244 FOOD,

245 FOOD, 246 FOOD





AIRDUC® PUR 356 FOOD REINFORCED (XXHD)

















ideal for: foodstuff, pharmaceutical

- Food hose and pharmaceutical hose
- super-heavy duty and reinforced
- extremely abrasion-resistant with reinforcement underneath wire and narrow hose pitch
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600 and 178.2010
- Approval acc. to EU-Directive 10/2011 (food simulants A, B, C or E and D2) and EC 1935/2004
- microbe and hydrolysis resistant
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium ether-polyurethane (Pre-PUR®); reinforcement of the primary abrasion areas

Wall thickness: 3,0 - 3,5mm

Ø: 2"/50mm - 6"/152mm

Accessories: 211, 230

BARDUC® PUR-INOX 382 FOOD-AS (XHD)



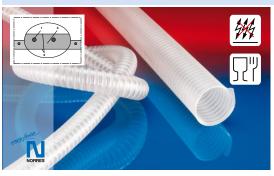












ideal for: foodstuff, pharmaceutical, tablet presses

- Food hose and pharmaceutical hose
- super-heavy duty
- very high pressure, vacuum and compression resistance
- Approved by an independent testing laboratory for the complete hose acc. to EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, food grade polyurethane, complies with: FDA 21 CFR 177.2600
- Approval acc. to EU-Directive 10/2011 (food simulant E) and EC 1935/2004
- microbe and hydrolysis resistant
- antistatic <10⁹ Ω
- -40°C to +90°C

Design, Material: BARDUC® design; spring steel wire spiral embedded in wall; spiral: stainless steel wire (INOX); smooth interior and exterior; wall: permanently antistatic premium ether-polyurethane (Pre-PUR®)

Wall thickness: 4 - 6mm

Ø: 1.25"/32mm - 4"/100-102mm

Accessories: 211



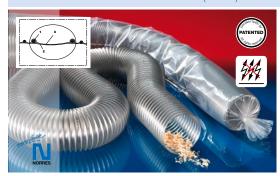


Hoses for the woodworking industry

Content

TIMBERDUC® PUR 531 AS (XLD) Antistatic polyurethane hose for the woodworking industry, light, flame-retardant40°C to 90°C35
TIMBERDUC® PUR 532 AS (LD) Antistatic polyurethane hose for the woodworking industry, medium-heavy, flame-retardant40°C to 90°C35
TIMBERDUC® PUR 532 CNC (MD) CNC machine hose for the woodworking ind., reinforced + for higher vacuum, highly flex. + comp. 4:140°C to 90°C35
TIMBERDUC® PUR 533 AS (MD) Antistatic polyurethane hose for the woodworking industry, heavy, flame-retardant40°C to 90°C35

TIMBERDUC® PUR 531 AS (XLD)



ideal for: wood dust extraction, wood chips

















- Polyurethane hose wood industry
- super-light weight
- microbe resistant
- flame-retardant according to: DIN 4102-B1
- conforms to the safety regulations of the German Wood Trade Association
- antistatic <109 Ω
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: permanently antistatic premium polyurethane (Pre-PUR®), resistant to aggressive wood types and wood preservatives

Wall thickness: 0,4mm

Ø: 1.57"/40mm - 15.70"/400mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



TIMBERDUC® PUR 532 AS (LD)



ideal for: wood dust extraction, wood chips







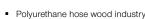












- light weight
- microbe resistant
- flame-retardant according to: DIN 4102-B1
- conforms to the safety regulations of the German Wood Trade Association
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: permanently antistatic premium polyurethane (Pre-PUR®), resistant to aggressive wood types and wood preservatives

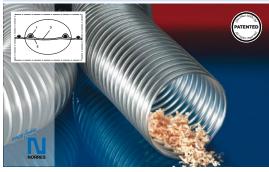
Wall thickness: 0,6mm

Ø: 1.57"/40mm - 15.70"/400mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



TIMBERDUC® PUR 532 CNC (MD)



ideal for: CNC maschines, wood dust extraction, wood chips

- CNC machine hose
- medium-heavy duty
- increased pressure and vacuum resistance
- -40°C to +90°C (+125°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: premium polyurethane, resistant to aggressive wood types and wood preservatives, with flame-retardant additive (Pre-PUR®)

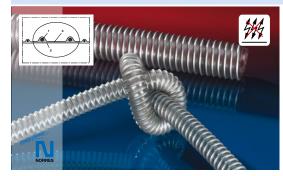
Wall thickness: 0,7mm

Ø: 8"/200-203mm - 15.70"/400mm

Accessories: 212, 217, 213, 228, 223, 270-271



TIMBERDUC® PUR 533 AS (MD)



ideal for: wood dust extraction, wood chips, parquet flooring grinding machines, vertical panel saws









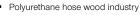












- medium-heavy duty
- increased pressure and vacuum resistance
- microbe resistant
- flame-retardant according to: UL94-V2 & DIN 4102-B1
- conforms to the safety regulations of the German Wood Trade Association
- antistatic <109 O
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: permanently antistatic premium polyurethane (Pre-PUR $^{\circ}$), resistant to aggressive wood types and wood preservatives

Wall thickness: 0,7mm

Ø: 1.57"/40mm - 15.70"/400mm

Accessories: 212 210 217 213 228 233 234 240 + 241 240 FC 242 243 245 246 223 270-271





TPE suction hoses and conveying hoses

Content

PROTAPE® TPE 320 AS (XLD) TPE hose, medium-heavy (up to +150°C), antistatic40°C to 125	°C37
PROTAPE® TPE 320 HT (XLD) TPE hose, light (up to +150°C)40°C to 140	°C3
PROTAPE® TPE 321 REINFORCED (LD) TPE hose, light, fabric reinforced (up to +125°C)40°C to 110	°C37
AIRDUC® TPE 363 (MD) TPE hose, medium-heavy (up to +150°C)40°C to 125	°C37

PROTAPE® TPE 320 AS (XLD)



ideal for: steam soaking, granulate dryer, infrared dryer, UV dryer

- TPE hose
- super-light weight
- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- antistatic <10⁹ Ω
- -40°C to +125°C (+150°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: thermoplastic rubber (TPE), antistatic

Wall thickness: 0,4mm

Ø: 2"/50-51mm - 12.40"/250mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



PROTAPE® TPE 320 HT (XLD)



ideal for: hot air tube

TPE hose

- super-light weight
- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- -40°C bis +140°C (+150°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: thermoplastic rubber (TPE)

Wall thickness: 0,4mm

Ø: 1,5"/38mm - 11.8"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



PROTAPE® TPE 321 REINFORCED (LD)



ideal for: steam soaking, granulate dryer, infrared dryer, UV dryer

- TPE hose
- light weight
- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- -40°C to +110°C (+125°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: EPDM/PP coated fabric

Wall thickness: 0,4mm

Ø: 2"/50-51mm - 11.80"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



AIRDUC® TPE 363 (MD)



ideal for: steam irons, dedusting systems, film blowing machines, granulate dryer

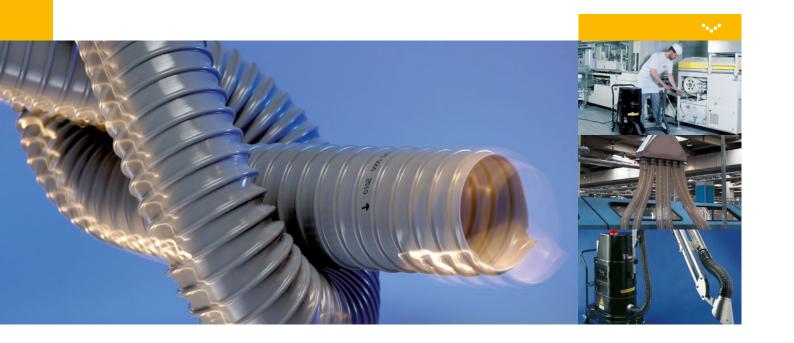
- TPE hose
- medium-heavy duty
- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- -40°C to +125°C (+150°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: thermoplastic rubber (TPE)

Wall thickness: 0,8mm

Ø: 1.20"/30mm - 9.85"/250mm





PVC, PE, EVA suction and transport hoses

Content

PROTAPE® PVC 310 (LD) PVC hose, light	20°C to 70°C39
AIRDUC® PVC 341 (MD) PVC hose, medium-heavy	20°C to 70°C39
AIRDUC® PVC 345 (HD) PVC hose, heavy	20°C to 70°C39
PROTAPE® PVC 371 (LD) PVC ducting, (to +110°C)	10°C to 80°C39
PROTAPE® PVC 371 (MD) PVC ducting, (to +110°C)	10°C to 80°C40
PROTAPE® PVC 371 (HD) PVC ducting, (to +110°C)	20°C to 90°C40
PROTAPE® PVC 371 AS (HD) PVC ducting (to +110°C)	20°C to 90°C40
PROTAPE® PVC 371 HT (LD) PVC ducting (to +120°C)	41
PROTAPE® PUR 370 (LD) Polyurethane ducting (to +125°C)	40°C to 125°C41
CP PVC 465 PVC clamp profile hose (clip hose) (to +110°C)	10°C to 80°C41
CP PVC 465 EC Electrically conductive PVC clamp profile hose (clip hose), (to +110°C)	10°C to 80°C42
CP PVC 466 HT PVC clamp profile hose (clip hose) (to +120°C)	10°C to 110°C42
CP HiTex 467 WELDING Clamp profile hose (clip hose) for flying sparks or welding sparks (to +280°C)	70°C to 260°C42
CP PE 457 Polyethylene clamp profile hose (clip hose)	35°C to 80°C43
CP PE 457 EC Electrically conductive polyethylene clamp profile hose (clip hose)	35°C to 80°C43
PROTAPE® PE 322 EC (XLD) Electrically conductive polyethylene hose, light	35°C to 80°C43
AIRDUC® PE 362 FOOD (MD) Polyethylene food hose and pharmaceutical hose, medium-heavy	35°C to 80°C44
AIRDUC® PE 362 EC (MD) Electrically conductive polyethylene hose, medium-heavy	35°C to 80°C44
SuperFlex PVC 372 Highly flexible PVC hose, light	0°C to 85°C44
EVA 373 Vacuum cleaner hose	45°C to 65°C45
EVA 373 AS Vacuum cleaner hose, antistatic <10 ¹¹ Ω	25°C to 65°C45
EVA 373 EC Vacuum cleaner hose, electrically conductive <10 ⁶ Ω	25°C to 65°C45

PROTAPE® PVC 310 (LD)



ideal for: extraction units, ventilation, galvanic extraction

- PVC suction hose
- light weight
- good resistance to alkalis and acids
- good resistance to chemicals
- -20°C to +70°C (+80°C)

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: high grade soft PVC

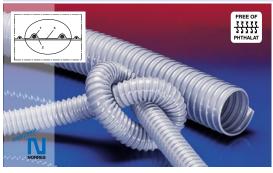
Wall thickness: 0,6mm

Ø: 1.20"/30mm - 11.80"/300mm

Accessories: 212, 210, 217, 213, 228, 223, 270-271



AIRDUC® PVC 341 (MD)



ideal for: extraction units, galvanic extraction



- medium-heavy duty
- good resistance to alkalis and acids
- -20°C to +70°C (+80°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: high grade soft PVC

Wall thickness: 0,9mm

Ø: 0.80"/20mm - 13.80"/350mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 240 + 241, 242, 243, 245, 246, 223, 270-271





ideal for: extraction units, galvanic extraction

- PVC suction hose
- heavy duty
- increased pressure and vacuum resistance
- good resistance to alkalis and acids
- -20°C to +70°C (+80°C)

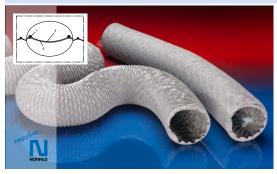
Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: high grade soft PVC

Wall thickness: 1,5mm

Ø: 0.80"/20mm - 13.80"/350mm

Accessories: 212, 212 EC, 217, 213, 228, 240 + 241, 242, 243, 245, 246, 223, 270-271

PROTAPE® PVC 371 (LD)



ideal for: extraction arms, asbestos sanitation, ventilation, construction drying, welding fume extraction

- PVC ventilation hose
- liaht weiaht
- good resistance to alkalis and acids
- good resistance to chemicals
- flame-retardant wall according to: NF P 92-503 M2
- -10°C to +80°C (+110°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: PVC coated fabric

Wall thickness: 0,25mm

Ø: 1.57"/40mm - 20"/508mm



























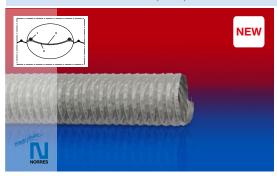








PROTAPE® PVC 371 (MD)



ideal for: extraction arms, asbestos sanitation, ventilation, construction drying, welding fume extraction

- PVC ventilation hose
- medium-heavy duty
- good resistance to alkalis and acids
- flame-retardant wall according to: NF P 92-503 M2
- -10°C to +80°C (+110°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; Wall: PVC coated glass fabric

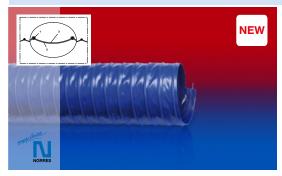
Wall thickness: 0,25mm

Ø: 2"/50-51mm - 23.6"/600mm

Accessories: 210, 208, 228, 223, 270-271



PROTAPE® PVC 371 (HD)



ideal for: extraction arms, asbestos sanitation, ventilation, welding fume extraction

- PVC ventilation hose
- heavy duty
- approved to ISO3795 (self-extinguishing)
- -20°C to +90°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: PVC coated fabric

Wall thickness: 0,5 mm

Ø: 2"/50-51mm - 17.7"/450mm

Accessories: 210, 208, 228, 223, 270-271







ideal for: extraction arms, ventilation















permanently antistatic wall: in accordance with ISO 8031 electrical

Wall thickness: 0,5 mm

PVC ventilation hose heavy duty

Ø: 2"/50-51mm - 17.7"/450mm

and surface resistance $<10^9\,\Omega$

Accessories: 210, 208, 228, 223, 270-271

flame-retardant according to: NF P 92-507 M2



PROTAPE® PVC 371 HT (LD)



ideal for: extraction arms, ventilation, welding fume extraction

- PVC ventilation hose
- light weight
- very good heat resistance
- flame-retardant wall according to: NF P 92-503 M1
- -10°C to +110°C (+120°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; Wall: PVC coated glass fabric

Wall thickness: 0,25mm

Ø: 2"/50-51mm - 12"/305mm

Accessories: 210, 208, 228, 223, 270-271



PROTAPE® PUR 370 (LD)



ideal for: extraction arms, ventilation, welding fume extraction

- Polyurethane ventilation hose
- light weight
- flame-retardant wall according to: NF P 92-503 M1
- -40°C to +125°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: polyurethane coated fabric

Wall thickness: 0,25mm

Ø: 2"/50-51mm - 10"/254mm

Accessories: 210, 208, 228, 223, 270-271



CP PVC 465



ideal for: welding fume extraction











PVC clip hos

- abrasion protection via external clamp profile
- good resistance to alkalis and acids
- flame-retardant wall according to: NF P 92-503 M2
- -10°C to +80°C (+110°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; fabric-reinforced tape; wall: PVC coated fabric

Ø: 1.5"/38mm - 40"/1016mm



CP PVC 465 EC



ideal for: extraction of chemical vapours, vapour return hose



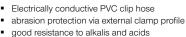












electrically conductive approx. 10⁶ Ω

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; fabric-reinforced tape; wall: PVC coated fabric

Ø: 2"/50-51mm - 40"/1016mm

■ -10°C to +80°C (+110°C)

Accessories: 212, 217, 213, 228, 270-271



CP PVC 466 HT



ideal for: welding fume extraction

PVC clip hose

- abrasion protection via external clamp profile
- very good heat resistance
- flame-retardant wall according to: NF P 92-503 M1
- -10°C to +110°C (+120°C)

Design, Material: CP construction, clamp profile supporting spiral: galvanised steel, fabric-reinforced tape, Wall: PVC coated glass fabric

Ø: 1.5"/38mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP HiTex 467 WELDING



ideal for: welding fume extraction

Clip hose for flying sparks or welding sparks

- abrasion protection via external clamp profile
- extremely heat resistant
- flame-retardant
- -70°C to +260°C (+280°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; fabric-reinforced tape; wall: special-coated hightemperature fabric

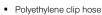
Ø: 2"/50-51mm - 40"/1016mm



CP PE 457







- abrasion protection via external clamp profile
- odourless and tasteless
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- -35°C to +80°C

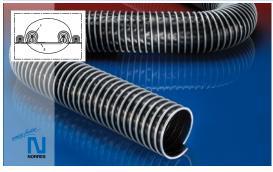
Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: polyethylene fabric (LDPE + HDPE)

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP PE 457 EC



ideal for: extraction of chemical vapours, explosion hazard areas

- Electrically conductive polyethylene clip hose
- abrasion protection via external clamp profile
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- electrically conductive <10³ Ω
- -35°C to +80°C

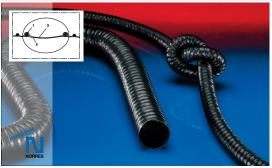
Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: electrically conductive polyethylene (PE)

Ø: 1.5"/38mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



PROTAPE® PE 322 EC (XLD)



ideal for: extraction arms, mines, extraction of chemical vapours, explosion hazard areas, spray mist extraction, vapour return hose

- Electrically conductive polyethylene hose
- super-light weight
 - good resistance to alkalis and acids
- extremely good resistance to chemicals
- electrically conductive <10³ Ω
- -35°C to +80°C

Design, Material: patented PROTAPE® tape hose; spring steel wire integrated in wall; wall: electrically conductive polyethylene (PE)

Wall thickness: 0,3mm

Ø: 1.57"/40mm - 11.80"/300mm



AIRDUC® PE 362 FOOD (MD)



ideal for: extraction of chemical vapours, tobacco conveying

- Polyethylene food hose and pharmaceutical hose
- medium-heavy duty
- Food grade wall, complies with: FDA 21 CFR 177.1520 3.1 and 3.2, FCN741, EU-Directive 10/2011 and EC 1935/2004
- odourless and tasteless
- extremely good resistance to chemicals
- -35°C to +80°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special polyethylene (PE)

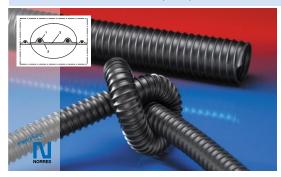
Wall thickness: 0,8mm

Ø: 1"/25mm - 9.85"/250mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 223, 270-271



AIRDUC® PE 362 EC (MD)



ideal for: extraction of chemical vapours, explosion hazard areas

- Electrically conductive polyethylene hose
- medium-heavy duty
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- electrically conductive <10³ Ω
- -35°C to +80°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: electrically conductive polyethylene (PE)

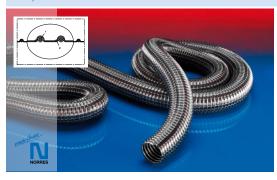
Wall thickness: 0,8mm

Ø: 1.25"/32mm - 11.8"/300mm

Accessories: 212, 210, 212 EC, 217, 213, 228, 223, 270-271



SuperFlex PVC 372



ideal for: construction drying, floor cleaning machines, industrial vacuum cleaners, welding fume extraction, scrubbing machine

- PVC suction hose
- light weight
- good resistance to alkalis and acids
- 0°C to +85°C

Design, Material: SuperFlex design; plastic coated spring steel wire; wall: high grade soft PVC

Ø: 1"/25mm - 4"/100-102mm

Accessories: 208, 228, 223, 226, 270-271



EVA 373



ideal for: industrial vacuum cleaners, vacuum cleaners

- Vacuum cleaner hose
- light weight
- crush resistant
- floatable
- good resistance to alkalis and acids
- -45°C to +65°C

Design, Material: EVA design; self-supporting profile design; open profile geometry; wall: EVA

Ø: 0.80"/20mm - 2.36"/60mm

Accessories: 208, 228, 227



EVA 373 AS



ideal for: industrial vacuum cleaners, vacuum cleaners

- Vacuum cleaner hose
- light weight
- crush resistant
- floatable
- good resistance to alkalis and acids
- surface resistance <10¹¹ Ω
- -25°C to +65°C

Design, Material: EVA design; self-supporting profile design; open profile geometry; wall: EVA

Ø: 0.80"/20mm - 2,36"/60mm

Accessories: 208, 228, 227









EVA 373 EC



ideal for: industrial vacuum cleaners, vacuum cleaners

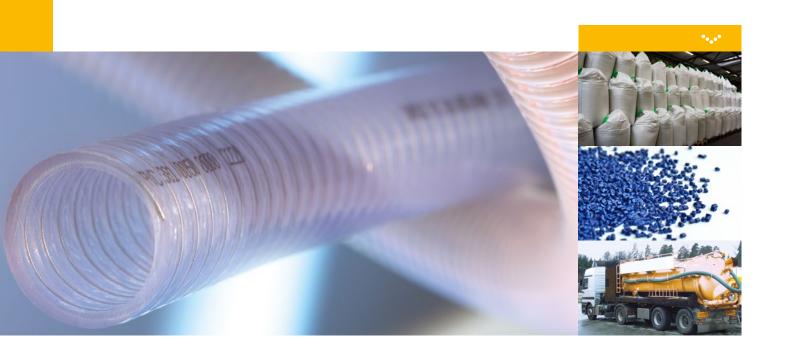
- Vacuum cleaner hose
- light weightcrush resistant
- crush resista
- floatable
- good resistance to alkalis and acids
- surface resistance <106 Ω
- -25°C to +65°C

Design, Material: EVA design; self-supporting profile design; open profile geometry; wall: EVA

Ø: 0.80"/20mm - 2"/50-51mm

Accessories: 208, 228, 227





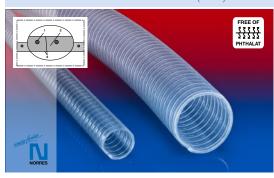
BARDUC® suction and pressure hoses

Content

BARDUC® PVC 381 FOOD (HD)

PVC hose, heavy, smooth interior and exterior, vacuum-proof.......47

BARDUC® PVC 381 FOOD (HD)



ideal for: foodstuff, agricultural industry, pharmaceutical, vacuum conveyor/vacuum conveying devices, caravans/camper

- PVC food hose
- heavy duty
- very high pressure, vacuum and compression resistance
- Food grade wall, complies with: EU-Directive 10/2011, EC 1935/2004 and EU 2015/174, according to FDA 21 CFR 177.1210 and 175.300
- good resistance to alkalis and acids
- good resistance to chemicals
- -20°C to +70°C (+80°C)

 $\textbf{Design, Material:} \ \ \textbf{BARDUC} \\ \ \ \ \textbf{design; spring steel wire spiral embedded in} \\$ wall; smooth interior and exterior; wall: high grade soft PVC

Wall thickness: Ø10: 2,35mm, Ø12-16: 3mm, Ø18: 3,25mm, Ø19-22: 3,5mm, Ø25: 4mm, Ø30-42: 4,5mm, Ø45-60: 5mm, Ø63-70: 5,5mm, Ø76: 6,5mm, Ø80-102: 7mm

Ø: 0.40"/10mm - 4"/100-102mm

Accessories: 211

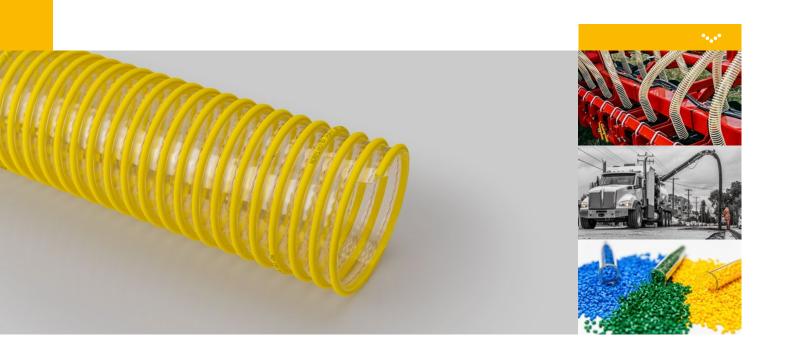










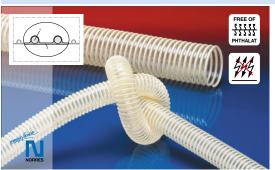


NORPLAST® suction hoses and pressure hoses

Content

NORPLAST® PUR 385 AS (LD) Antistatic polyurethane hose, light, microbe resistant	20°C to 70°C49
NORPLAST® PUR 385 FOOD (LD) Food hose and pharmaceutical hose, light	20°C to 70°C49
NORPLAST® PUR-C 385 AS (LD) Antistatic polyurethane hose, light, microbe resistant, grounding wire	20°C to 70°C49
NORPLAST® PUR-C 386 AS (XHD) Antistatic polyurethane hose, heavy, grounding wire	20°C to 70°C50
NORPLAST® PUR 387 (XXHD) Polyurethane hose, super-heavy	20°C to 70°C50
NORPLAST® PUR-C 387 AS (XXHD) Antistatic polyurethane hose, super-heavy, grounding wire	20°C to 70°C50
NORPLAST® PVC 383 (LD) PVC hose, light	5°C to 60°C51
NORPLAST® PVC 384 AS (HD) Antistatic PVC hose, heavy	5°C to 70°C51
NORPLAST® PVC-CU 384 AS (HD) Antistatic PVC hose, heavy, grounding wire	5°C to 70°C51
NORPLAST® PVC 380 GREEN (HD) PVC hose, heavy	5°C to 60°C52
NORPLAST® PVC 379 GREEN SUPERELASTIC (HD) PVC hose, heavy, flexible at low temp. (down to -25°C)	25°C to 60°C52
NORPLAST® PVC 388 SUPERELASTIC (MD) PVC hose, medium-heavy, flexible at low temp. (down to -25°C)	25°C to 60°C52
NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD) PVC hose, super-heavy, flexible at low temp. (down to -25°C)	25°C to 60°C53
NORPLAST® PVC-C 389 AS-SUPERELASTIC WEAR STRIP (XHD) Antistatic PVC hose, super-heavy, flexible at low temp., grounding wire	25°C to 60°C53
NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD) PVC hose heavy flexible at low temp (down to -40°C)	-40°C to 60°C 53

NORPLAST® PUR 385 AS (LD)



ideal for: breathing hose, agricultural industry, X-ray machines, mowing machines, welding masks, ship yards

- Full plastic suction hose made of PU
- light weight
- abrasion-resistant
- microbe resistant
- antistatic approx. $10^9\,\Omega$
- -20°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®)

Wall thickness: Ø20-50: 0,5mm, Ø60-76: 0,6mm, Ø80-100: 0,7mm, Ø110-250: 0,8mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 208, 228, 233, 223, 270-271



NORPLAST® PUR 385 FOOD (LD)



ideal for: foodstuff, pharmaceutical, X-ray machines

- Full plastic suction hose made of PU, food grade
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174, according to FDA 21 CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- -20°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: special premium ether-polyurethane (Pre-PUR®)

Wall thickness: Ø20-50: 0,5mm, Ø60-76: 0,6mm, Ø80-100: 0,7mm, Ø110-250: 0,8mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 208, 228, 233, 223, 270-271

NORPLAST® PUR-C 385 AS (LD)



ideal for: extraction hose











Full plastic suction hose made of PU

- light weight
- abrasion-resistant
- microbe resistant
- antistatic <10 9 Ω
- -20°C to +70°C (+80°C)

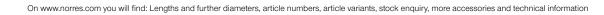
Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: permanently antistatic premium ester-polyurethane (Pre-PUR®); grounding wire

Wall thickness: Ø20-50: 0,5mm, Ø60-76: 0,6mm, Ø80-100: 0,7mm, Ø110-250: 0,8mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 208, 228, 233, 223, 270-271





NORPLAST® PUR-C 386 AS (XHD)



ideal for: granulate conveying, wood pellet conveying, agricultural industry, seeder, silos, tankers

- Full plastic transport and suction hose made of PVC/PU
- super-heavy duty
- highly abrasion resistant
- increased pressure and vacuum resistance
- antistatic <10 9 Ω
- -20°C to +70°C (+80°C)

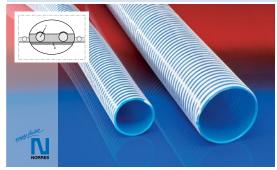
Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; Wall: antistatic polyurethane inside layer 0,7mm - 1,0 mm approx., exterior soft PVC; grounding wire

Wall thickness: Ø20-30: 2mm, Ø32-38: 2,2mm, Ø40-45: 2,4mm, Ø50-51: 2,5mm, Ø60: 2,6mm, Ø63-90: 3mm, Ø100-110: 3,4mm, Ø120-150: 3,7mm

Ø: 1.25"/32mm - 4"/100-102mm

Accessories: 211, 233, 270-271

NORPLAST® PUR 387 (XXHD)



ideal for: roof gravelling, suction trucks, silos, tankers, dry suction

- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- super-heavy duty and reinforced
- extremely abrasion resistant
- very high pressure, vacuum and compression resistance
- -20°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: premium polyurethane (Pre-PUR®), inside layer 2,0 mm approx. exterior soft PVC

Wall thickness: Ø76: 5,2mm, Ø90-102: 6mm, Ø127: 7,3mm, Ø152: 7mm

Ø: 3"/75-76mm - 6"/150-152mm

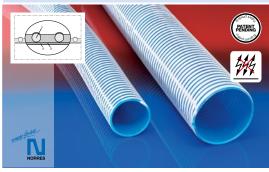
Accessories: 211







NORPLAST® PUR-C 387 AS (XXHD)



ideal for: suction trucks, silos, tankers, dry suction trucks

- Full plastic transport and suction hose made of PVC/PU
- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- super-heavy duty and reinforced
- extremely abrasion resistant
- very high pressure, vacuum and compression resistance
- antistatic <10⁹ Ω
- -20°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; Wall: antistatic polyurethane inside layer 2,0 mm approx., exterior soft PVC; grounding wire

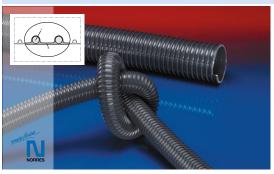
Wall thickness: Ø76: 5,2mm, Ø90-102: 6mm, Ø127: 7,3mm, Ø152: 7mm

Ø: 3"/75-76mm - 6"/150-152mm

Accessories: 211



NORPLAST® PVC 383 (LD)



ideal for: agricultural industry, X-ray machines, caravans/camper

- PVC suction hose
- light weight
- good resistance to alkalis and acids
- -5°C to +60°C

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: soft PVC

Wall thickness: Ø20-25: 0,6mm, Ø30-38: 0,7mm, Ø40-50: 0,8mm, Ø60-100: 0,9mm, Ø110-150: 1mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 208, 228, 233, 223, 270-271



NORPLAST® PVC 384 AS (HD)



ideal for: granulate conveying, wood pellet conveying, vacuum conveyor/vacuum conveying devices

- Full plastic transport and suction hose made of PVC
- heavy duty
- increased pressure and vacuum resistance
- good resistance to alkalis and acids
- antistatic approx. $10^9\,\Omega$
- -5°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: high grade soft PVC and antistatic

Wall thickness: Ø20-30: 2mm, Ø32-38: 2,2mm, Ø40-45: 2,4mm, Ø50-51: 2,5mm, Ø60: 2,6mm, Ø63-90: 3mm, Ø100-110: 3.4mm, Ø120-150: 3.7mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 211, 233, 270-271

NORPLAST® PVC-CU 384 AS (HD)



ideal for: granulate conveying, wood pellet conveying, vacuum conveyor/vacuum conveying devices

- Full plastic transport and suction hose made of PVC
- heavy duty
- increased pressure and vacuum resistance
- good resistance to alkalis and acids
- antistatic approx. $10^9\,\Omega$
- -5°C to +70°C (+80°C)

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: high grade soft PVC and antistatic; grounding wire

Wall thickness: Ø20-30: 2mm, Ø32-38: 2,2mm, Ø40-45: 2,4mm, Ø50-51: 2,5mm, Ø60: 2,6mm, Ø63-90: 3mm, Ø100-110: 3,4mm, Ø120-150: 3,7mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 211, 233, 270-271







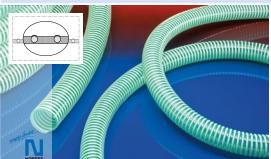








NORPLAST® PVC 380 GREEN (HD)



ideal for: irrigation, toilet discharging, caravans/camper

- Full plastic transport and suction hose made of PVC
- heavy duty
- good resistance to alkalis and acids
- -5°C to +60°C

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: soft PVC

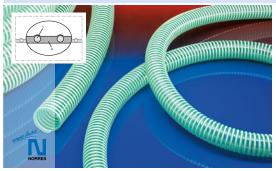
Wall thickness: Ø19-30: 2,1mm, Ø32-38: 2,3mm, Ø40-45: 2,6mm, Ø50-63: 3,9mm, Ø70-76: 4,2mm, Ø80-100: 4,7mm

Ø: 3/4"/19mm - 4"/100-102mm

Accessories: 211, 233, 270-271



NORPLAST® PVC 379 GREEN SUPERELASTIC (HD)



ideal for: irrigation, manure spreader, manure spreader, agricultural industry, seeder, caravans / camper

- Full plastic transport and suction hose made of PVC
- heavy duty
- good resistance to alkalis and acids
- very good low temperature flexibility

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: low temperature flexible soft PVC

Wall thickness: Ø19-30: 2,1mm, Ø32-38: 2,3mm, Ø40-45: 2,6mm, Ø50-63: 3,9mm, Ø70-76: 4,2mm, Ø80-100: 4,7mm

Ø: 3/4"/19mm - 2"/50-51mm

Accessories: 211, 233, 270-271







NORPLAST® PVC 388 SUPERELASTIC (MD)



ideal for: vacuum lifters/vacuum lifting devices

- Full plastic transport and suction hose made of PVC
- medium-heavy duty
- good resistance to alkalis and acids
- very good low temperature flexibility
- -25°C to +60°C

Design, Material: NORPLAST® full plastic hose; hard plastic spiral integrated in wall; spiral: rigid PVC; smooth interior; wall: high grade low temperature flexible soft PVC

Wall thickness: Ø20:1,5mm, Ø25-30: 1,2mm, Ø32: 1,3mm, Ø35-38: 1,4mm, Ø40-90: 1,5mm, Ø102-127: 1,6mm, Ø152: 1,2mm

Ø: 0.80"/20mm - 6"/150-152mm

Accessories: 208, 228, 233, 223, 270-271



NORPLAST® PVC 389 SUPERELASTIC WEAR STRIP (XHD)







ideal for: manure spreader, manure spreader, sewer cleaning, agricultural industry, suction trucks, sewage cleaning, dry suction trucks

- Full plastic transport and suction hose made of PVC
- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- super-heavy duty
- very high pressure, vacuum and compression resistance
- good resistance to alkalis and acids
- -25°C to +60°C

Design, Material: NORPLAST® full plastic hose; outer hard plastic spiral; spiral: rigid PVC; smooth interior; wall: high grade low temperature flexible soft PVC

Wall thickness: Ø25-38: 2,9mm, Ø40-51: 3,6mm, Ø60-70: 3,8mm, Ø76-90: 4,3mm, Ø102-110: 5,3mm, Ø127-152: 5,6mm

Ø: 1.25"/32mm - 6"/150-152mm

Accessories: 211, 270-271

NORPLAST® PVC-C 389 AS-SUPERELASTIC WEAR STRIP (XHD)



ideal for: suction trucks, dry suction trucks

- Full plastic transport and suction hose made of PVC
- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- super-heavy duty
- very high pressure, vacuum and compression resistance
- good resistance to alkalis and acids
- antistatic <10⁹ Ω
- -25°C to +60°C

Design, Material: NORPLAST® full plastic hose; outer hard plastic spiral; spiral: rigid PVC; smooth interior; wall: high grade antistatic and low temperature flexible soft PVC; grounding wire

Wall thickness: Ø25-38: 2,9mm, Ø40-51: 3,6mm, Ø60-70: 3,8mm, Ø76-90: 4,3mm, Ø102-110: 5,3mm, Ø127-152: 5,6mm

Ø: 1"/25mm - 6"/150-152mm

Accessories: 211, 270-271

NORPLAST® PVC 389 SUPERELASTIC PLUS (XHD)



ideal for: sewer cleaning, agricultural industry, suction trucks, sewage cleaning, dry suction trucks

- Full plastic transport and suction hose made of PVC
- external abrasion protection via external helix (protects floors and surfaces, prolongs service life, easy to use)
- super-heavy duty
- very high pressure, vacuum and compression resistance
- good resistance to alkalis and acids
- -40°C to +60°C

Design, Material: NORPLAST® full plastic hose; outer hard plastic spiral; spiral: impact-resistant modified rigid PVC; smooth interior; wall: high grade low temperature flexible soft PVC

Wall thickness: Ø25-38: 2,9mm, Ø40-51: 3,6mm, Ø60-70: 3,8mm, Ø76-90: 4,3mm, Ø102-110: 5,3mm, Ø127-152: 5,6mm

Ø: 1"/25mm - 6"/150-152mm

Accessories: 211, 270-271

















Metal hoses

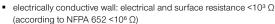
Content

METAL HOSE 375 Metal hose, suction hose	120°C	5
METAL HOSE 375 HT Metal hose, suction hose	400°C	5
METAL HOSE INOX 376 Metal hose, stainless steel (INOX), suction hose	600°C	5
METAL HOSE 377 REINFORCED Metal hose, transport hose	120°C	5

METAL HOSE 375







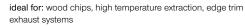
+120°C

Design, Material: Metal hose; profiled metal strip, galvanised steel; hooked profile; seal: special fibre

Ø: 0.80"/20mm - 11.80"/300mm

Accessories: 270-271, 202 - 206





METAL HOSE 375 HT



- very good heat resistance
- flame-retardant
- electrically conductive wall: electrical and surface resistance <10³ Ω (according to NFPA 652 <10⁶ Ω)
- +400°C

Design, Material: Metal hose; profiled metal strip, galvanised steel; hooked profile; seal: glass fibre

Ø: 0.80"/20mm - 11.80"/300mm

Accessories: 270-271, 202 - 206



ideal for: wood chips, high temperature extraction

METAL HOSE INOX 376



ideal for: wood chips, high temperature extraction

- Metal hose
- extremely heat resistant
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- flame-retardant
- electrically conductive wall: electrical and surface resistance <10³ Ω (according to NFPA 652 <10⁶ Ω)
- +600°C

Design, Material: Metal hose; profiled metal strip, stainless steel (INOX); hooked profile; seal: glass fibre

Ø: 0.80"/20mm - 11.80"/300mm

Accessories: 270-271, 202 - 206



METAL HOSE 377 REINFORCED



ideal for: transport hose, high temperature extraction

- Metal hose
- super-heavy duty and reinforced
- flame-retardant
- +120°C

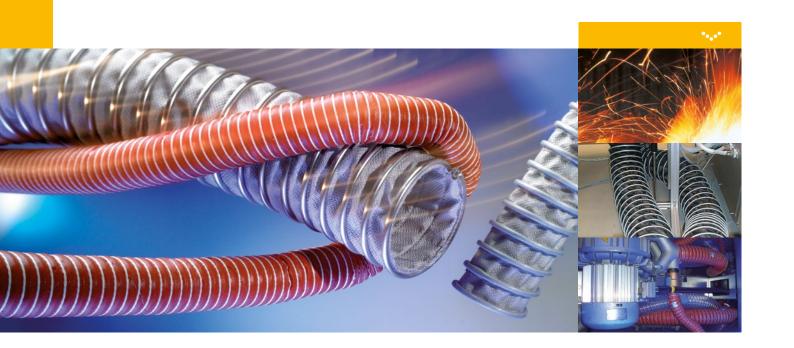
Design, Material: Metal hose; profiled metal strip, galvanised steel; hooked profile; seal: special fibre; reinforcement of the primary abrasion areas

Ø: 2"/50-51mm - 11.80"/300mm

Accessories: 270-271, 202 - 206







Hot air hoses, high-temperature hoses (-200 .. +1.100 °C)

Content

NEO 390 ONE Neoprene hose, single-layer, leak-proof (up to +150°C)	35°C to 135°C	57
NEO 390 TWO Neoprene hose, double-layer, leak-proof (up to +150°C)	35°C to 135°C	57
CP HYP 450 Clamp profile hose (clip hose), (up to +170°C)	40°C to 170°C	57
CP PTFE/HYP-INOX 472 Clamp profile hose (clip hose), double-layer (up to +170°C)	40°C to 170°C	58
CP PTFE/HYP-INOX 472 EC Electrically conductive clamp profile hose (clip hose), double-layer, highly chemical resistant (up to +170°C	;)-40°C to 170°C	58
CP VITON® 459 EC Electrically conductive clamp profile hose (clip hose), (up to +210°C)	20°C to 210°C	58
CP PTFE-INOX 475 FOOD Clamp profile hose (clip hose), food hose and pharmaceutical hose, highly chemical resistant (up to +270°C)	-150°C to 250°C	59
CP PTFE-INOX 475 EC Electrically conductive clamp profile hose (clip hose), highly chemical resistant (up to +270°C)	-150°C to 250°C	59
CP PTFE/GLASS-INOX 471 Clamp profile hose (clip hose), double-layer, highly chemical resistant (up to +270°C)	-150°C to 250°C	59
CP PTFE/GLASS-INOX 471 EC Electrically conductive clamp profile hose (clip hose), double-layer, highly chemical resistant (up to +270°C)	-150°C to 250°C	60
CP SIL 460 Clamp profile hose (clip hose), (up to +280°C)	70°C to 260°C	60
CP ARAMID 461 Clamp profile hose (clip hose), vibration-resistant (up to +300°C)	60°C to 260°C	60
SIL 391 ONE Silicone hose, single-layer, leak-proof (up to +280°C)	70°C to 260°C	61
SIL 391 TWO Silicone hose, double-layer, leak-proof (up to +280°C)	70°C to 260°C	61
CP Kapton® 476 High-temperature hose, clamp profile hose (clip hose), (up to +400°C)	60°C to 400°C	61
CP HiTex 480 High-temperature hose, clamp profile hose (clip hose), (up to +450°C)	60°C to 400°C	62
CP HiTex 487 High-temperature hose, clamp profile hose (clip hose), (up to +500°C)	60°C to 450°C	62
CP HiTex 485 High-temperature hose, clamp profile hose (clip hose), multi-layer, insulating, suitable for slight overpressure (up to +550°C)	60°C to 500°C	62
CP HiTex 481 High-temperature hose, clamp profile hose (clip hose), double-layer (up to +700°C)	60°C to 600°C	63
CP HiTex 486 High-temperature hose, clamp profile hose (clip hose), multi-layer, insulating, suitable for slight overpressure (up to +700°C)	60°C to 650°C	63
CP HiTex 483 High-temperature hose, clamp profile hose (clip hose), multi-layer, insulating (up to 1.100°C),	60°C to 900°C	63

NEO 390 ONE



ideal for: granulate dryer, infrared dryer, UV dryer

- Neoprene hose
- single-layer
- fibre reinforced
- very good heat resistance
- -35°C to +135°C (+150°C)

Design, Material: Neoprene hose; spring steel wire; fabric-reinforced tape; wall: Neoprene coated glass fabric; chords made of interwoven yarns as reinforcement

Ø: 0.50"/13mm - 12"/305mm

Accessories: 208, 211, 228, 270-271



NEO 390 TWO



ideal for: granulate dryer, infrared dryer, UV dryer

- Neoprene hose
- double-laver
- fibre reinforced
- very good heat resistance
- -35°C to +135°C (+150°C)

Design, Material: Neoprene hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: Neoprene coated glass fabric; chords made of interwoven yarns as reinforcement

Ø: 0.50"/13mm - 12"/305mm

Accessories: 208, 211, 228, 270-271



CP HYP 450



ideal for: waste gas exhaust, extraction units, extraction of chemical vapours

- Clip hose
- abrasion protection via external clamp profile
- vibration resistant
- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- double-layer
- -40°C to +170°C

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: CSM coated polyester fabric

Ø: 1.5"/38mm - 40"/1016mm



CP PTFE/HYP-INOX 472



ideal for: extraction of chemical vapours, spray mist extraction

- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- TEFLON®
- -40°C to +170°C

Design, Material: CP construction; clamp profile supporting spiral: all-stainless steel (INOX); double-layer wall; wall: PTFE film interior, CSM coated polyester fabric exterior

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP PTFE/HYP-INOX 472 EC



ideal for: extraction of chemical vapours, explosion hazard areas



- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- surface resistance PTFE film <106 Ω
- TEFLON® <106 Ω
- -40°C to +170°C

Design, Material: CP construction; clamp profile supporting spiral: allstainless steel (INOX); wall: semi-conducting PTFE film interior, CSM coated polyester fabric exterior

Ø: 2"/50-51mm - 40"/1016mm

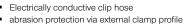
Accessories: 212, 217, 213, 228, 270-271

CP VITON® 459 EC



ideal for: extraction of chemical vapours, explosion hazard areas





- very good heat resistance
- good resistance to oil, gasoline and chemicals
- good resistance to alkalis and acids
- electrically conductive wall: electrical and surface resistance <10 $^4\,\Omega$ (according to NFPA 652 <106Ω)
- VITON® <10⁴ Ω
- -20°C to +210°C

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: VITON® coated polyester fabric

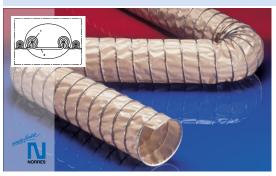
Ø: 1,5"/38mm - 40"/1016mm







CP PTFE-INOX 475 FOOD



ideal for: extraction of chemical vapours, spray mist extraction, foodstuff, pharmaceutical



- very good heat resistance
- Inside layer food quality complies with: EU-Directive 10/2011 and EC 1935/2004
- food grade wall, complies with: FDA 21 CFR 177.1550, German guideline XV BfR
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- TEFLON®
- -150°C to +250°C (+270°C)

Design, Material: CP construction; clamp profile supporting spiral: all-stainless steel (INOX); wall: PTFE coated glass fabric

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP PTFE-INOX 475 EC



ideal for: extraction of chemical vapours, explosion hazard areas, spray mist extraction

- Electrically conductive clip hose
- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- surface resistance PTFE film <106 Ω
- TEFLON® <106 Ω
- -150°C to +250°C (+270°C)

Design, Material: CP construction; clamp profile supporting spiral: allstainless steel (INOX); wall: PTFE coated glass fabric

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP PTFE/GLASS-INOX 471



ideal for: extraction of chemical vapours, spray mist extraction

- Clip hose
- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- TEFLON®
- -150°C to +250°C (+270°C)

Design, Material: CP construction; clamp profile supporting spiral: allstainless steel (INOX); double-layer wall; wall: interior PTFE foil, exterior special-coated glass fabric

Ø: 2"/50-51mm - 40"/1016mm



CP PTFE/GLASS-INOX 471 EC



ideal for: extraction of chemical vapours, explosion hazard areas

- Electrically conductive clip hose
- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- surface resistance PTFE film <106 Ω
- TEFLON® <106 Ω
- -150°C to +250°C (+270°C)

Design, Material: CP construction; clamp profile supporting spiral: all-stainless steel (INOX); wall: interior semi-conducting PTFE foil, exterior special-coated glass fabric

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271







ideal for: high temperature extraction, blast furnace, ceramic industry



- abrasion protection via external clamp profile
- highly flexible + compressible 4:1
- very good heat resistance
- flame-retardant according to: DIN 4102-B1
- -70°C to +260°C (+280°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: Silicone coated glass fabric

Ø: 2"/50-51mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP ARAMID 461



ideal for: waste gas exhaust, extraction units

• Clip boos

- abrasion protection via external clamp profile
- vibration resistant
- very good heat resistance
- flame-retardant according to: DIN 4102-B1
- Aramid wall: Fire-class "M1" according to UNE 23.727-90
- -60°C to +260°C (+300°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: special-coated high-temperature fabric

Ø: 1.5"/38mm - 40"/1016mm



SIL 391 ONE



ideal for: granulate dryer, infrared dryer, UV dryer

- Silicone hose/tubing
- single-layer
- fibre reinforced
- very good heat resistance
- -70°C to +260°C (+280°C)

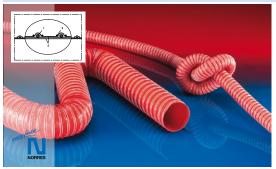
Design, Material: Silicone hose; spring steel wire; fabric-reinforced tape; wall: Silicone coated glass fabric; chords made of interwoven yarns as reinforcement

Ø: 0.50"/13mm - 12"/305mm

Accessories: 208, 211, 228, 270-271



SIL 391 TWO



ideal for: granulate dryer, infrared dryer, UV dryer

- Silicone hose/tubing
- double-layer
- fibre reinforced
- very good heat resistance
- -70°C to +260°C (+280°C)

Design, Material: Silicone hose; spring steel wire integrated in wall; fabric-reinforced tape; wall: Silicone coated glass fabric; chords made of interwoven yarns as reinforcement

Ø: 0.50"/13mm - 12"/305mm

Accessories: 208, 211, 228, 270-271



CP Kapton® 476



ideal for: waste gas exhaust, aluminium mills, extraction of chemical vapours

- High-temperature hose
- abrasion protection via external clamp profile
- very good heat resistance
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- -60°C to +400°C

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; Wall: Kapton® laminated glass fabric

Ø: 2"/50-51mm - 40"/1016mm



CP HiTex 480



ideal for: overhead heater, ceramic industry

- High-temperature hose
- very good resistance to flying sparks and welding sparks
- abrasion protection via external clamp profile
- very good heat resistance
- flame-retardant according to: DIN 4102-B1
- -60°C to +400°C (+450°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: stainless steel wire reinforced and special coated glass fabric

Ø: 1,5"/38mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



FLAME 48h

CP HiTex 487



ideal for: high temperature extraction, engine test rigs

High-temperature hose

- abrasion protection via external clamp profile
- very good heat resistance
- -60°C to +450°C (+500°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; double-layer wall; wall: interior and exterior special-coated high-temperature fabric

Ø: 3"/75-76mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP HiTex 485



ideal for: waste gas exhaust, aluminium mills, high temperature extraction, engine test rigs

High-temperature hose

- insulating
- suitable for light overpressure
- very good heat resistance
- -60°C to +500°C (+550°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; multi-layer hose wall; wall: interior and exterior special coated glass fabric

Ø: 4"/100-102mm - 20"/508mm



CP HiTex 481



ideal for: waste gas exhaust, aluminium mills, high temperature extraction, ceramic industry, engine test rigs

- High-temperature hose
- very good resistance to flying sparks and welding sparks
- abrasion protection via external clamp profile
- very good heat resistance
- -60°C to +600°C (+700°C)

Design, Material: CP construction; clamp profile supporting spiral: all-stainless steel (INOX); double-layer wall; wall: interior and exterior stainless steel wire reinforced and special coated glass fabric

Ø: 3"/75-76mm - 40"/1016mm

Accessories: 212, 217, 213, 228, 270-271



CP HiTex 486



ideal for: waste gas exhaust, aluminium mills, blast furnace, ceramic industry, engine test rigs

- High-temperature hose
- very good resistance to flying sparks and welding sparks
- insulating
- suitable for light overpressure
- very good heat resistance
- -60°C to +650°C (+700°C)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; multi-layer hose wall; wall: interior and exterior special coated glass fabric, thermo-insulation fabric; special thermal insulation layer

Ø: 4"/100-102mm - 20"/508mm

Accessories: 212, 217, 213, 228, 270-271







CP HiTex 483



ideal for: waste gas exhaust, aluminium mills, blast furnace, ceramic industry, engine test rigs

- High-temperature hose
- very good resistance to flying sparks and welding sparks
- abrasion protection via external clamp profile
- insulating
- extremely heat resistant
- -60°C to +900°C (+1.100°C)

Design, Material: CP construction; clamp profile supporting spiral: allstainless steel (INOX); multi-layer hose wall; wall: interior stainless steel wire reinforced and special coated glass fabric, thermo-insulation fabric, exterior special coated glass fabric; special thermal insulation layer

Ø: 4"/100-102mm - 20"/508mm





Exhaust gas hoses for combustion engines

Content

PROTAPE® TPE 326 MEMORY Crush resistant exhaust gas hose	to 200°C65
CP HYP 450 PROTECT Exhaust gas hose, vibration resistant, outer protection profile	to 200°C65
CP ARAMID 461 PROTECT Exhaust gas hose, vibration resistant, outer protection profile	to 300°C65

PROTAPE® TPE 326 MEMORY



ideal for: waste gas exhaust, car gas extraction, hose reels

- Crush resistant exhaust gas hose
- fabric reinforced
- protected, flow-optimizing exterior folds
- vibration resistant
- crush resistant
- +200°C, when correctly applied with exhaust gas funnels and sufficient fresh air supply (50% approx.)

Design, Material: patented PROTAPE® tape hose; special plastic-profile supporting spiral; fabric-reinforced tape; wall: EPDM/PP coated fabric

Wall thickness: 0,4 mm

Ø: 2"/50-51mm - 8"/200-203mm

Accessories: 212, 217, 213, 228, 270-271



CP HYP 450 PROTECT



ideal for: waste gas exhaust, car gas extraction, hose reels



- outer protection profile made of elasticised material
- abrasion protection via external clamp profile
- vibration resistant
- very good heat resistance
- +200°C, when correctly applied with exhaust gas funnels and sufficient fresh air supply (50% approx.)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: CSM coated polyester fabric; firmly clamped, shock-absorbing, anti-abrasion profile made from elasticised, high-temperature plastic

Ø: 3"/75-76mm - 10"/254mm

Accessories: 212, 217, 213, 228, 270-271

CP ARAMID 461 PROTECT



ideal for: waste gas exhaust, car gas extraction, hose reels





- abrasion protection via external clamp profile
- vibration resistant
- very good heat resistance
- Aramid wall: Fire-class "M1" according to UNE 23.727-90
- +300°C, when correctly applied with exhaust gas funnels and sufficient fresh air supply (50% approx.)

Design, Material: CP construction; clamp profile supporting spiral: galvanised steel; wall: specialcoated high-temperature fabric; firmly clamped, shock-absorbing, anti-abrasion profile made from elasticised, high-temperature plastic

Ø: 3"/75-76mm - 10"/254mm







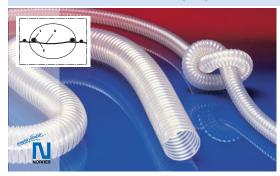


Flame resistant hoses for rail vehicles, buses

Content

PROTAPE® PUR 332 SE (LD) Suction hose and pressure hose according to UL94-V2, DIN 4102-B1, light40°C to 125°C67	
AIRDUC® PUR 352 SE (MD) Suct. & pressure hose acc. to UL94-V0, DIN 4102-B1& 5510-2 (S2, SR2, ST2), NF P 92-507 M3, med. heavy40°C to 125°C67	
AIRDUC® PUR 352 SE RAILWAY (MD) Suction hose and pressure hose according to DIN EN 45545-2, medium-heavy40°C to 90°C67	
AIRDUC® PUR 352 SE RAILWAY PLUS (MD) Suction hose and pressure hose according to DIN EN 45545-2, medium-heavy40°C to 90°C67	

PROTAPE® PUR 332 SE (LD)



ideal for: sand conveying in braking systems, rail vehicles, trams



- light weight
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: UL94-V0, DIN 4102-B1, FMVSS 302
- -40°C to +90°C (+125°C)

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; extruded tape; wall: special premium polyurethane with flame retardant additive (Pre-PUR®)

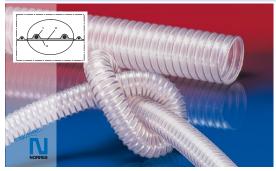
Wall thickness: 0,6mm

Ø: 1.57"/40mm - 19.7"/500mm

Accessories: 212, 210, 217, 213, 223



AIRDUC® PUR 352 SE (MD)



ideal for: sand conveying in braking systems, roof drainage, rail vehicles, trams

Suction and pressure hose for rail vehicles and buses

- medium-heavy duty
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: UL94-V0, DIN4102-B1, DIN 5510-2 (S4 SR2, ST2), FMVSS 302, NF P 92-507 M3
- -40°C to +90°C (+125°C)

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane with flame retardant additive (Pre-PUR®)

Wall thickness: 0,9mm

Ø: 1.57"/40mm - 19.7"/500mm Accessories: 208, 212, 270-271



AIRDUC® PUR 352 SE RAILWAY (MD)



ideal for: sand conveying in braking systems, roof drainage, rail vehicles, trams

- Suction and pressure hose for rail vehicles and buses
- medium-heavy duty
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: DIN EN 45545-2; R23 HL1
- tested according to NFPA 130: ASTM E 162 + ASTM E 662 + BSS 7239 + BSS 7242
- tested according to EN45545-2: ISO 5658-2 + ISO 5659-2 662
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane with flame retardant additive (Pre-PUR®)

Wall thickness: 0,9mm

Ø: 0.80"/20mm - 7"/178-180mm

Accessories: 212, 210, 208, 270-271

AIRDUC® PUR 352 SE RAILWAY PLUS (MD)



ideal for: sand conveying in braking systems, roof drainage, rail vehicles, trams

- Suction and pressure hose for rail vehicles and buses
- medium-heavy duty
- insulating
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: DIN EN 45545-2; R1 HL1, HL2, HL3;
 R22 HL1, HL2, R23 HL1, HL2
- -40°C to +90°C

Design, Material: AIRDUC® profile hose; spring steel wire firmly embedded in wall; wall: special premium polyurethane with flame retardant additive (Pre-PUR®); special thermal insulation layer

Wall thickness: 0,9mm

Ø: 0.80"/20mm - 7"/178-180mm

Accessories: 208, 270-271



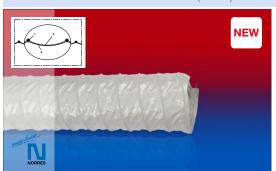


PVC, PE air conditioning and ventilation hoses, air conditioning hoses, insulating hoses

Content

PROTAPE® PVC 371 GREY (XLD) PVC Climatic hose, flame resistant, grey	10°C to 80°C69
PROTAPE® PVC 371 ANTI-BACTERIAL (XLD) PVC air-conditioning hose, anti-bacterial, flame resistant	10°C to 80°C69
ISODUC PVC 368 GREY PVC Climatic hose, insulated, flame resistant, grey	10°C to 80°C69
ISODUC PVC 368 ANTI-BACTERIAL PVC climatic hose, insulated, anti-bacterial, flame resistant	10°C to 80°C70
PROTAPE® PVC 371 BLACK (XLD) PVC Climatic hose, flame resistant, black	0°C up to 75°C70
ISODUC PVC 368 BLACK PVC air conditioning hose, insulated, flame resistant, black	0°C up to 75°C70
PROTAPE® ALU-PVC 369 Alu/PVC air conditioning hose, flame resistant	10°C up to 140°C71
PROTAPE® ALU-PES 369 Aluminium/Polyester air conditioning hose, flame resistant (M1)	71
ISODUC ALU-PES 368 SOUND-INSULATION Alu/Polyester air conditioning hose, insulated, sound-absorbing, flame retardant (M1)	30°C up to 140°C71
ISODUC ALU-PES 368 Aluminium/Polyester air conditioning hose, insulated, flame resistant (M1)	30°C up to 140°C72
PROTAPE ® ALU-PES 369 SE Aluminium/Polyester air conditioning hose, flame resistant (M0)	30°C up to 250°C72
ISODUC ALU-PES 368 SE Aluminium/Polyester air conditioning hose, insulated, flame resistant (M0)(M0)	30°C up to 200°C72
PROTAPE® ALU-PES 369 ANTI-BACTERIAL Aluminium/Polyester air conditioning hose, anti-bacterial, flame resistant (M1)	30°C up to 130°C73
ISODUC ALU-PES 368 ANTI-BACTERIAL Aluminium/polyester air conditioning hose, insulated, anti-bacterial, flame resistant (M1)	
METAL HOSE ALU 377 - ALUFLEX Aluminium air conditioning hose, flame retardant (M0), self-locking	

PROTAPE® PVC 371 GREY (XLD)





- PVC climatic hose
- super-light weight
- approved to FMVSS 302 (flame-retardant)
- -10°C to +80°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: PVC coated fabric; Pressure max. 200 mm $\rm H_2O$; Air speed max. 20 m/s; bending radius 0,6 x ID

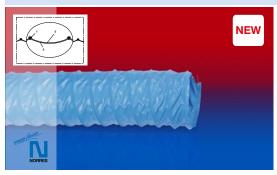
Wall thickness: 0,25mm

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



PROTAPE® PVC 371 ANTI-BACTERIAL (XLD)



ideal for: ventilation, air conditioning, heating system

- PVC climatic hose
- super-light weight
- anti-bacterial: PVC contains antimicrobial protection Sanitized® US EPA e US FDA approved
- flame-retardant according to: class 1 (Italy)
- -10°C to +80°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: PVC coated fabric; Pressure max. 200 mm H₂O; Air speed max. 20 m/s; bending radius 0,6 x ID

Wall thickness: 0,25mm

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271

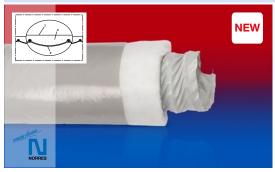








ISODUC PVC 368 GREY



ideal for: ventilation, air conditioning, thermal and acoustic insulation

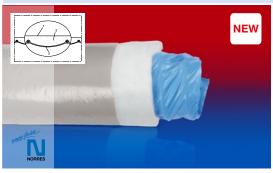
- PVC climatic hose
- flame-retardant according to: class 1 (Italy)
- -10°C to +80°C

Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and weight 300 g/m²; Pressure max. 200 mm $\rm H_2O$; Air speed max. 20 m/s; bending radius 0,6 x ID

Ø: 3"/75-76mm - 24"/610mm



ISODUC PVC 368 ANTI-BACTERIAL



ideal for: ventilation, air conditioning in hospitals, thermal and acoustic insulation

- PVC climatic hose
- anti-bacterial: PVC contains antimicrobial protection Sanitized® US EPA e US FDA approved
- -10°C to +80°C

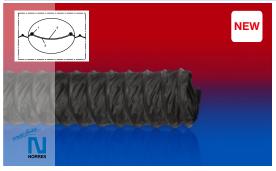
Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and weight 250-300 g/m²; Pressure max. 200 mm H_2O ; Air speed max. 20 m/s; bending radius 0,6 x ID

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



PROTAPE® PVC 371 BLACK (XLD)



ideal for: ventilation, air conditioning, heating system

- PVC climatic hose
- super-light weight
- flame-retardant according to: class 1 (Italy)
- 0°C to +75°C

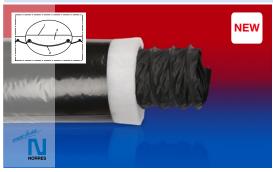
Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: PVC coated fabric; Pressure max. 200 mm $\rm H_2O$; Air speed max. 20 m/s; bending radius 0,6 x ID

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



ISODUC PVC 368 BLACK



ideal for: ventilation, air conditioning, thermal and acoustic insulation

- PVC climatic hose
- flame-retardant according to: class 1 (Italy)
- 0°C to +75°C

Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and density 17 Kg/m $^{\rm a}$; Pressure max. 200 mm H $_{\rm 2}$ O; Air speed max. 20 m/s; bending radius 0,6 x ID

Ø: 3"/75-76mm - 24"/610mm





PROTAPE® ALU-PVC 369



ideal for: ventilation, air conditioning, heating system

- Alu/PVC Climatic hose
- super-light weight
- -10°C to +140°C

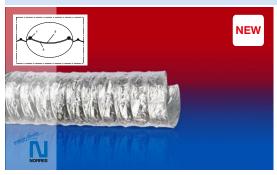
Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: PVC coated aluminium; Pressure max. 250 mm $\rm H_2O$; Air speed max. 25 m/s; bending radius 0,6 x ID

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



PROTAPE® ALU-PES 369



ideal for: ventilation, bathroom and kitchen extraction and ventilation, air conditioning, heating system

- Alu/Polyester Climatic hose
- super-light weight
- flame-retardant according to: C.S.T.B. class M1 (France)
- -30°C to +140°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: aluminium; Pressure max. 300 mm $\rm H_2O$; Air speed max. 30 m/s

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



ISODUC ALU-PES 368 SOUND-INSULATION



ideal for: ventilation, air conditioning, thermal and acoustic insulation

- Alu/Polyester Climatic hose
- flame-retardant according to: C.S.T.B. class M1 (France)
- -30°C to +140°C

Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and density 17 Kg/m³; Pressure max. 300 mm H₂O; Air speed max. 30 m/s

Ø: 3"/75-76mm - 24"/610mm



ISODUC ALU-PES 368



ideal for: ventilation, air conditioning, thermal and acoustic insulation

- Alu/Polyester Climatic hose
- flame-retardant according to: NF P 92-512 M1
- -30°C to +140°C

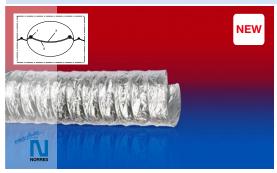
Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and density 17 Kg/m $^{\rm a}$; Pressure max. 300 mm H $_{\rm 2}$ O; Air speed max. 30 m/s

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



PROTAPE® ALU-PES 369 SE



ideal for: ventilation, air conditioning in marine applications

- Alu/Polyester Climatic hose
- super-light weight
- flame-retardant according to: C.S.T.B. class M0 (France)
- flame-retardant according to: non-combustible according to BUREAU VERITAS standards (France)
- -30°C to +250°C

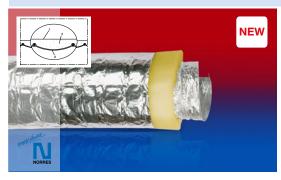
Design, Material: PROTAPE $^{\oplus}$ tape hose; spring steel wire integrated in wall; wall: aluminium; Pressure max. 300 mm H $_2$ O; Air speed max. 30 m/s

Ø: 3"/75-76mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



ISODUC ALU-PES 368 SE



ideal for: ventilation, air conditioning in marine applications, thermal and acoustic insulation

- Alu/Polyester Climatic hose
- flame-retardant according to: C.S.T.B. class M0 (France)
- -30°C bis +200°C

Design, Material: special thermal insulation layer; fibreglass insulation thickness 25 mm and density 16 Kg/m $^{\rm a}$; Pressure max. 300 mm H $_{\rm 2}$ O; Air speed max. 30 m/s

Ø: 3"/75-76mm - 24"/610mm

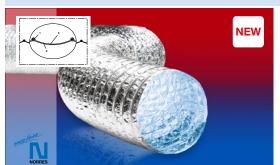


PROTAPE® ALU-PES 369 ANTI-BACTERIAL









ideal for: ventilation, bathroom and kitchen extraction and ventilation, air conditioning, heating system

- Alu/Polyester Climatic hose
- super-light weight
- odourless
- anti-fungal performance according to ASTM G21
- anti-bacterial performance according to ISO 22196
- flame-retardant according to: C.S.T.B. class M0 (France)
- -30°C bis +130°C

Design, Material: PROTAPE® tape hose; spring steel wire integrated in wall; wall: aluminium; Pressure max. 300 mm H₂O; Air speed max. 30 m/s

Ø: 3.23"/82mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



ISODUC ALU-PES 368 ANTI-BACTERIAL



ideal for: ventilation, air conditioning in hospitals, thermal and acoustic insulation

- Alu/Polyester Climatic hose
- odourless
- anti-fungal performance according to ASTM G21
- anti-bacterial performance according to ISO 22196
- flame-retardant according to: C.S.T.B. class M1 (France)
- -30°C bis +130°C

Design, Material: special thermal insulation layer; polyester insulation thickness 25 mm and weight 250-300 g/m 2 ; Pressure max. 300 mm H $_2$ O; Air speed max. 30 m/s

Ø: 3.23"/82mm - 24"/610mm

Accessories: 210, 208, 228, 270-271



METAL HOSE ALU 377 - ALUFLEX



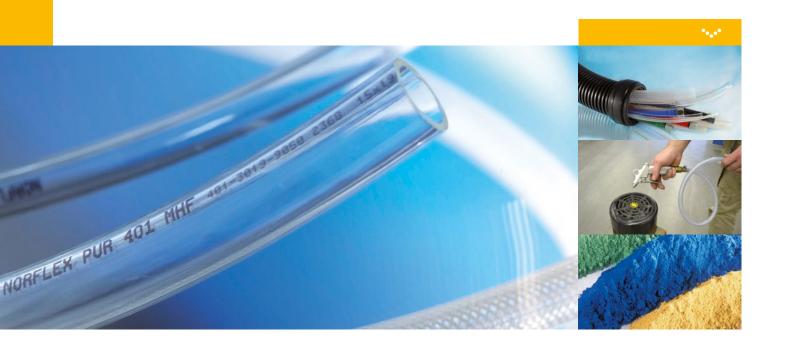
ideal for: ventilation, air conditioning in marine applications, ventilation, air conditioning, heating system

- Alu Climatic hose
- highly flexible + compressible 3:1
- retaining any adjusted position
- +300°C

Design, Material: Metal hose; Pressure max. 300 mm H₂O

Accessories: 208, 270-271



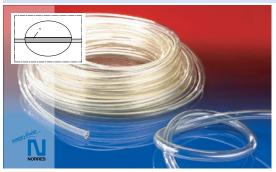


Compressed air hoses, pneumatic hoses, fluid hoses

Content

NORFLEX® PUR 401 FOOD Abrasion resistant polyurethane hose/tubing	40°C to 90°C75
NORFLEX® PUR 441 FOOD Abrasion resistant polyurethane hose/tubing, fabric reinforced pressure hose	40°C to 90°C75
NORFLEX® PUR 401 WELDING Flame-retardant polyurethane hose/tubing, for flying sparks or welding sparks	20°C to 60°C75
NORFLEX® PUR 441 ROBOTIC Abrasion resistant polyurethane hose/tubing for industrial robots, fabric reinforced high pressure hose	35°C to 80°C75
NORFLEX® PVC 400 PVC hose/tubing	20°C to 60°C76
NORFLEX® PVC 440 PVC hose/tubing, fabric reinforced pressure hose	20°C to 60°C76
NORFLEX® PVC 440 HIGH PRESSURE PVC hose/tubing, fabric reinforced high pressure hose	20°C to 60°C76
NORFLEX® SIL 408 Silicone hose/tubing	77
NORFLEX® SIL 448 Silicone hose/tubing, fabric reinforced pressure hose	77
NORFLEX® PTFE 407 PTFE hose/tubing	150°C to 200°C77

NORFLEX® PUR 401 FOOD



ideal for: foodstuff, pharmaceutical, hose pumps

















- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: NORFLEX® design; wall interior and exterior smooth; wall: special premium ether-polyurethane (Pre-PUR®)

Ø: 0.08"/2mm - 3/4"/19mm

Accessories: 208



NORFLEX® PUR 441 FOOD



ideal for: compressed air hose, cooling water hose, foodstuff, pharmaceutical

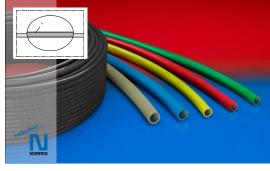
- Polyurethane hose
- fabric reinforced
- crush resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- -40°C to +90°C (+125°C)

Design, Material: NORFLEX® design; fabric reinforced wall; smooth interior and exterior; wall: special premium ether-polyurethane (Pre-PUR®)

Ø: 1/8"/2,9mm - 3/4"/19mm

Accessories: 208

NORFLEX® PUR 401 WELDING



ideal for: compressed air hose, pneumatic tube, robots, welding equipment, welding robots

















Polyurethane hose

- crush resistant
- good resistance to oil, gasoline and chemicals
- flame-retardant according to: UL94-V0/V2
- -20°C to +60°C

Design, Material: NORFLEX® design; wall interior and exterior smooth; wall: special premium polyurethane with flame retardant additive (Pre-PUR®)

Ø: 0.08"/2mm - 7/8"/22mm

Accessories: 208

NORFLEX® PUR 441 ROBOTIC



ideal for: compressed air hose, industrial robots, cooling water hose, welding robots, water hose















Hose/tubing for industrial robots

-35°C to +80°C

fabric reinforced

Design, Material: NORFLEX® design; fabric reinforced wall; smooth interior and exterior; wall: special premium polyurethane (Pre-PUR®)

Ø: 1/4"/6,4mm - 3/4"/19,5mm

Accessories: 208



NORFLEX® PVC 400



ideal for: hose pumps, water hose



- crush resistant
- good resistance to alkalis and acids
- good resistance to chemicals
- -20°C to +60°C

Design, Material: NORFLEX® design; wall interior and exterior smooth; wall: soft PVC

Ø: 0.08"/2mm - 2 3/8"/60mm

Accessories: 208



NORFLEX® PVC 440



ideal for: compressed air hose, cooling water hose, water hose

- PVC hose/tubing
- fabric reinforced
- crush resistant
- good resistance to alkalis and acids
- good resistance to chemicals
- -20°C to +60°C

Design, Material: NORFLEX® design; fabric reinforced wall; smooth interior and exterior; wall: soft PVC

Ø: 0.16"/4mm - 1 1/4"/32mm

Accessories: 208







ideal for: compressed air hose, high pressure spraying hose, cooling water hose, agricultural industry, water hose

- PVC hose/tubing
- fabric reinforced
- crush resistant
- good resistance to alkalis and acids
- good resistance to chemicals
- -20°C to +60°C

Design, Material: NORFLEX® design; fabric reinforced wall; wall interior and exterior smooth; wall: soft PVC

Ø: 5/16"/8mm - 1 1/4"/32mm

Accessories: 208



NORFLEX® SIL 408



ideal for: foodstuff, pharmaceutical











- Silicone hose/tubing
- crush resistant
- food grade wall, complies with: FDA 21 CFR 177.2600, German guideline XV BfR
- -60°C to +180°C

Design, Material: NORFLEX® design; wall interior and exterior smooth; wall: silicone 60 ± 5 Shore A

Ø: 0.08"/2mm - 1"/25mm

Accessories: 208



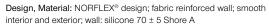
NORFLEX® SIL 448



ideal for: cooling water hose, foodstuff, pharmaceutical

Silicone hose/tubing

- fabric reinforced
- crush resistant
- food grade wall, complies with: FDA 21 CFR 177.2600, German guideline XV BfR
- -60°C to +180°C

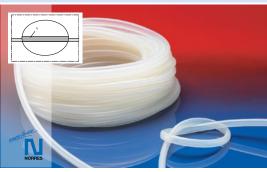


Ø: 1/8"/3mm - 3/4"/19mm

Accessories: 208

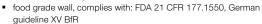


NORFLEX® PTFE 407



ideal for: chemical industry, foodstuff, pharmaceutical

PTFE hose/tubing



- microbe and hydrolysis resistant
- good resistance to alkalis and acids
- extremely good resistance to chemicals
- -150°C to +200°C

Design, Material: NORFLEX® design; wall interior and exterior smooth; wall: PTFF

Ø: 0.08"/2mm - 0,56"/14mm

Accessories: 208





Accessories, hose clamps, couplings, flanges, sleeves, integration systems (clamping shells, pressing sleeves, casting)

Content

CLAMP 212 Bridge clamp for attaching externally corrugated spiral hoses	80
CLAMP 216 Hose Clamp for watertight attachment of heavy, externally corrugated spiral hoses	80
CLAMP 208 Hose clamp for attachment of light-duty hoses with a smooth outer wall	80
CLAMP 210 BRIDGE CLAMP Clamp with plastic bridge for attaching externally corrugated spiral hoses	80
CLAMP 211 T-bolt clamp for attaching heavy-duty hoses with a smooth outer wall	81
CLAMP 212 EC Bridge Clamp with integral grounding connection via screw-pin and wire for attaching externally corrugated spiral hoses	81
CLAMP 217 Bridge clamp with eyelet for attaching externally corrugated spiral hoses	81
CLAMP 213 Bridge Clamp with quick-release closure for attaching externally corrugated spiral hoses	81
CONNECT 228 Elastic clamp protection tape	82
CONNECT 230 Special safety clamp coupling system for silos and dry-bulk transporters with couplers: Storz, Threaded connection, etc	82
CONNECT SAFETY CLAMP ASSEMBLY 231 Universal safety clamp coupling system incl. assembly if appropriate	82
CONNECT PRESS ASSEMBLY 232 Crimped coupling system incl. assembly	82
CONNECT MOULD ASSEMBLY 233 Potted coupling system incl. assembly	83
CONNECT THREAD FITTING 234 Threaded adapter	83
CONNECT TRI-CLAMP FITTING 245 TRI clamp adapters based on DIN 32676 and ISO 2853	83
CONNECT DAIRY FITTING 247 Dairy tube support based on DIN 2826/11851	83
CONNECT ASEPTIC FITTING 249 Aseptic adapters based in DIN 11864-1/DIN 11864-3	84
CONNECT 240 + 241 AS Soft sleeve to slide onto connectors or push into pipes	84
CONNECT 240 + 241 FOOD Soft sleeve to slide onto connectors or push into pipes, foodgrade	84
CONNECT 240 EC Soft sleeve to slide onto connectors or push into pipes, electrically conductive	84
CONNECT 242 Threaded adapter	85

DNNECT 243 Flanged pipe according to the popular pipe systems in the ventilation field (for example Jacob-Standard)	85
DNNECT 243 FOOD Flanged pipe according to the popular pipe systems in the ventilation field (for example Jacob-Standard), food-grade	85
DNNECT 244 2-part loose flange to fit mating flanges acc. to DIN 2632/2633, hole pattern DIN-EN 1092-1	85
DNNECT 244 FOOD 2-part loose flange to fit mating flanges acc. to DIN 2632/2633, hole pattern DIN-EN 1092-1, food safe	86
DNNECT 245 VAC-TRUCK Tapered flange coupling system to fit adapter acc. to DIN 3016-3	86
NNECT 245 TRI-Clamp coupling to fit adapter acc. to DIN 32677	86
DNNECT 245 FOOD TRI-Clamp coupling to fit adapter acc. to DIN 32677, foodgrade	87
DNNECT 246 AS Spiral hose connector for connecting, lengthening or repairing spiral hoses	87
DNNECT 246 FOOD Spiral hose connector for connecting, lengthening or repairing spiral hoses, foodgrade	87
DNNECT 223 Shrink sleeve for connecting one hose to another or to an adapter	88
DNNECT 226 Soft sleeve for SuperFlex hoses	88
DNNECT 227 Soft sleeve for EVA hoses	88
DNNECT 270-271 Metal hose connector/reducer	89
DNNECT 202 Connectors for connecting or attaching metal hoses	89
DNNECT 203-204 Connectors for connecting or attaching metal hoses	89
DNNECT 205 Connectors for connecting or attaching metal hoses	90
DNNECT 206 Connectors for connecting or attaching metal hoses	90
DNNECT STORZ DIN ALU 251 Storz suction coupling	90
DNNECT TANK TRUCK BRASS 252 Brass tank truck coupling	91
DNNECT KAMLOK ALU 253 Kamlok coupling	91
DNNECT KARDAN 254 Kardan coupling	91

CLAMP 212



- Bridge clamp for attaching externally corrugated spiral hoses
- practically leak-proof and secure clamping with special bridge geometry
- easily and quickly fitted
- re-usable

Design, Material: Quality: W2; clamp strip: stainless steel 1.4301 = AISI 304; screw: galvanised steel; Body: stainless steel 1.4016 = AISI 430; bridge: stainless steel 1.4301 = AISI 304 (INOX)

Accessories: 228; 270-271



CLAMP 216



- Hose Clamp for watertight attachment of heavy, externally corrugated spiral hoses
- watertight and tensile connection at very low overpressure due to special spiral geometry
- easily and quickly fitted
- re-usable

Design, Material: Quality: W2; clamp strip: stainless steel 1.4016 = AISI 430; clamp wire: stainless steel 1.4310 = AISI 301 (INOX); screw: chromated steel; Body: stainless steel 1.4016 = AISI 430

Accessories: 228; 270-271



CLAMP 208



- Hose clamp for attachment of light-duty hoses with smooth exterior
- easily and quickly fitted
- re-usable

Design, Material: Quality: W1; Clamp strip: galvanised steel; screw: galvanised steel; Body: galvanised steel;

Quality: W2; Clamp strip: stainless steel 1.4016 = AISI 430; screw: galvanised steel; Body: stainless steel 1.4016 = AISI 430;

Quality: W4; Clamp strip: stainless steel 1.4301 = AISI 304; screw: stainless steel 1.4301 = AISI 304; Body: stainless steel 1.4301 = AISI 304

Accessories: 228; 223; 270-271

CLAMP 210 BRIDGE CLAMP



- Clamp with plastic bridge for attaching externally corrugated spiral hoses
- practically leak-proof and secure clamping with special bridge geometry
- easily and quickly fitted
- re-usable
- multi-piece

Design, Material: Bridge: PA6

Quality: W1; clamp strip: galvanised steel; screw: galvanised steel; body: galvanised steel

Comes as a 10 pack loosely sealed in a bag



CLAMP 211



- T-bolt clamp for attaching heavy-duty hoses with a smooth exterior surface
- easily and quickly fitted
- re-usable

Design, Material: Quality: W1; Clamp strip: galvanised steel; screw: galvanised steel:

Quality: W2; Clamp strip: stainless steel 1.4016 = AISI 430; screw: galvanised steel;

Quality: W4; Clamp strip: stainless steel 1.4301 = AISI 304; screw: stainless steel 1.4301 = AISI 304

Accessories: 270-271





- Bridge Clamp with integrated grounding (via earth strip) for attaching externally corrugated spiral hoses
- grounding without exposing spiral and without damaging hose
- practically leak-proof and secure clamping with special bridge geometry
- easily and quickly fitted
- re-usable

Design, Material: Quality: W2; Clamp strip: stainless steel 1.4016 = AISI 430; screw: galvanised steel; Body: stainless steel 1.4016 = AISI 430; bridge: stainless steel 1.4301 = AISI 304 (INOX); earthing screw: stainless steel (INOX)

Accessories: 270-271





- Bridge clamp with eyelet for attaching externally corrugated spiral hoses
- practically leak-proof and secure clamping with special bridge geometry
- easily and quickly fitted
- re-usable

Design, Material: Quality: W2; Clamp strip: stainless steel 1.4016 = AISI 430; screw: galvanised steel; Body: stainless steel 1.4016 = AISI 430; bridge: stainless steel 1.4301 = AISI 304 (INOX); fixing eyelet: galvanised steel

Accessories: 270-271



CLAMP 213



- Bridge Clamp with quick-release closure for attaching externally corrugated spiral hoses
- practically leak-proof and secure clamping with special bridge geometry
- easily and quickly fitted
- re-usable

Design, Material: Quality: W2; Clamp strip: stainless steel 1.4016 = AISI 430; closure: stainless steel (INOX); bridge: stainless steel 1.4301 = AISI 304

Accessories: 270-271



CONNECT 228



- Elastic clamp protection tape
- easily and quickly fitted
- re-usable
- highly abrasion resistant
- good resistance to oil, gasoline and chemicals

Design, Material: wall: polyurethane

Accessories: 212; 216; 208; 270-271



CONNECT 230



- Special safety clamp coupling system for silos and dry-bulk transporters with couplers: Storz, Threaded connection, etc.
- special threaded profile of the clamp shells matches the outer hose contour
- easily and quickly fitted
- re-usable
- vibration resistant
- thread reference DIN ISO 228

Design, Material: clamp shells: aluminium; screw and nut: galvanised steel gunmetal finish; Adapter: material acc. to norres.com



CONNECT SAFETY CLAMP ASSEMBLY 231



- Universal safety clamp coupling system incl. assembly if appropriate
- special threaded sealing insert matches the outer hose contour
- easily and quickly fitted
- re-usable
- vibration resistant
- Food grade sealing insert, complies with: FDA 21 CFR 177.2600 and 178.2010, EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: AIRDUC® profile hose; patented coupling system; clamp shells: aluminium; sealing insert: special premium ether-polyurethane (Pre-PUR®); screw and nut: galvanised steel gunmetal finish; Adapter: available as an option

Accessories: 234, 245, 247, 249

CONNECT PRESS ASSEMBLY 232



- Crimped coupling system incl. assembly
- special threaded sealing insert matches the outer hose contour
- vibration resistant
- Food grade sealing insert, complies with: FDA 21 CFR 177.2600 and 178.2010, EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: patented coupling system; AIRDUC® profile hose; pressing sleeve: stainless steel 1.4404 = AISI 316L; Adapter: available as an option; sealing insert: special premium ether-polyurethane (Pre-PUR®)

Accessories: 234, 245, 247, 249





CONNECT MOULD ASSEMBLY 233











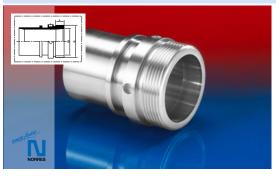
- Potted coupling system incl. assembly
- vibration resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: AIRDUC® profile hose; wall: special premium etherpolyurethane (Pre-PUR®); Adapter: available as an option

Accessories: 234, 245, 247, 249



CONNECT THREAD FITTING 234



- Threaded adapter
- thread reference DIN ISO 228
- gas and liquid tight as pre-fitted version

Accessories: 231, 232, 233



CONNECT TRI-CLAMP FITTING 245



- TRI clamp adapters based on DIN 32676 and ISO 2853
- gas and liquid tight as pre-fitted version

Design, Material: fitting: stainless steel 1.4404 (stamped) = AISI 316L; matching accessories: seal (silicone white, FDA), adapter (stainless steel 1.4404, stamped), clamp (stainless steel)

Accessories: 231, 232, 233



CONNECT DAIRY FITTING 247



- Dairy tube support based on DIN 2826/11888
- gas and liquid tight as pre-fitted version

Design, Material: fitting: stainless steel 1.4301 (stamped) = AISI 304 or 1.4571 (stamped) = AISI 316Ti; Threaded adapter with light blue Nitrile Perbunan (NBR) seal, safe for food

Accessories: 231, 232, 233



CONNECT ASEPTIC FITTING 249







- Aseptic adapters based in DIN 11864-4
- gas and liquid tight as pre-fitted version

Design, Material: fitting: stainless steel 1.4404 (stamped) = AISI 316L

Accessories: 231, 232, 233



CONNECT 240 + 241 AS















- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- version 241 permanently antistatic wall: electrical and surface resistance approx. $10^9\,\Omega$

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 240 + 241 FOOD















- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- version 241: material food grade according to EU 10/2011, FDA 21 CFR 177.1680 and CFR 177.2600
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 240 EC





- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- electrically conductive wall: electrical and surface resistance <10³ Ω

Design, Material: Wall of EC version electrically conductive <10 $^{\rm 3}$ Ω : electrically conductive Premium Ester-Polyurethane (Pre-PUR $^{\rm 8}$),



CONNECT 242









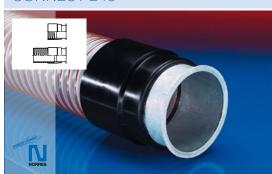


- Threaded adapter
- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- thread reference DIN ISO 228

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 243

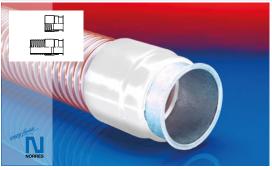


- Flanged pipe according to the popular pipe systems in the ventilation field (for example Jacob-Standard)
- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: flanged pipe: galvanised sheet metal; wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 243 FOOD

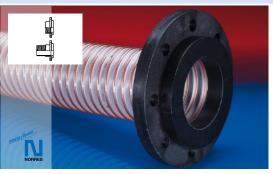


- Flanged pipe according to the popular pipe systems in the ventilation field (for example Jacob-Standard), food-grade
- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: flanged pipe:Stainless Steel (INOX); wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 244



- Loose flange to fit mating flanges acc. to DIN 2632/2633, hole pattern DIN-EN 1092-1
- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: loose flange: polypropylene (PP) coated steel core; wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 244 FOOD















- Loose flange to fit mating flanges acc. to DIN 2632/2633, hole pattern DIN-EN 1092-1
- easily and quickly fitted
- re-usable (threaded version)
- gas and liquid tight as pre-fitted version
- highly abrasion resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: loose flange: polypropylene (PP) coated steel core; wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 245 VAC-TRUCK



- Tapered flange coupling system to fit adapter acc. to DIN 3016-4
- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
- When used vertically user must secure flange and hose with additional attachments
- gas and liquid tight as pre-fitted version

 $\textbf{Design, Material:} \ wall: \ special \ premium \ ether-polyure thane \ (Pre-PUR^{\circledast})$



CONNECT 245



- TRI-Clamp coupling to fit adapter acc. to DIN 32677
- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)

Accessories: TRI-CLAMP 245



CONNECT 245 FOOD











- TRI-Clamp coupling to fit adapter acc. to DIN 32677, foodgrade
- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)

Accessories:TRI-CLAMP 245



CONNECT 246 AS



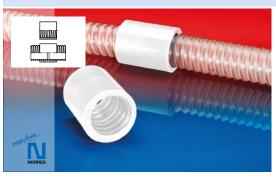


- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals
 permanently antistatic wall: electrical and surface resistance approx. 10⁹ Ω

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)



CONNECT 246 FOOD



- Spiral hose connector for connecting, lengthening or repairing spiral hoses, foodgrade
- easily and quickly fitted
- re-usable (threaded version)
- highly abrasion resistant
- Food grade wall, complies with: EU-Directive 10/2011 and EC 1935/2004 and the latest EU-Directive 2015/174
- odourless and tasteless
- microbe and hydrolysis resistant
- good resistance to oil, gasoline and chemicals

Design, Material: wall: special premium ether-polyurethane (Pre-PUR®)



Accessories, hose clamps, couplings, flanges, sleeves, integration systems (clamping shells, pressing sleeves, casting)

CONNECT 223



- Shrink hose for connecting one hose to another or to an adapter
- adapts itself to any surface
- easily and quickly fitted

Design, Material: polyolefine

Accessories: 208; 270-271



CONNECT 226



- Soft sleeve for SuperFlex hoses
- easily and quickly fitted
- re-usable (threaded version)
- good resistance to alkalis and acids
- good resistance to chemicals

Design, Material: wall: high grade soft PVC



CONNECT 227



- Soft sleeve for EVA hoses
- easily and quickly fitted
- re-usable
- good resistance to alkalis and acids
- good resistance to chemicals

Design, Material: Wall: high grade soft PVC, electrically conductive ${<}10^{8}\,\Omega$



CONNECT 270-271



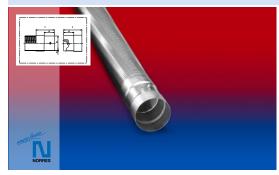
- Metal hose connector/reducer
- easily and quickly fitted
- re-usable (threaded version)

Design, Material: galvanised sheet metal

Accessories: 212; 216; 208; 211; 212 EC; 217; 213; 228; 223



CONNECT 202



- Connectors for connecting or attaching metal hoses
- Bayonet lock 202: cylindrical bayonet lock, alternatively coupling with a pin or flange with an L-slot, extension at one end for attaching the metal hose

Design, Material: stainless steel (INOX)



CONNECT 203-204



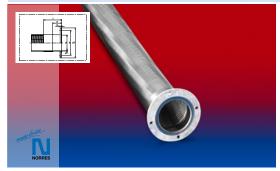
- Connectors for connecting or attaching metal hoses
- Adapter 203: cylindrical adapter, extension at one end for attaching the metal hose
- Slotted adapter 204: cylindrical adapter with two slots, extension at one end for attaching the metal hose

Design, Material: stainless steel (INOX)



Accessories, hose clamps, couplings, flanges, sleeves, integration systems (clamping shells, pressing sleeves, casting)

CONNECT 205



- Connectors for connecting or attaching metal hoses
- Flange 205: cylindrical adapter with rotatable flange, extension at one end for attaching the metal hose

Design, Material: stainless steel (INOX)



CONNECT 206



- Connectors for connecting or attaching metal hoses
- Quick-release coupling 206: quick-release coupling with several clamp clips, option of coupling with clamp clips or flange with flat face, extension at one end for attaching the metal hose

Design, Material: stainless steel (INOX)



CONNECT STORZ DIN ALU 251



- Storz suction coupling
- Not to be used for explosive fluids group 1 and not according to pressure equipment directive

Design, Material: DIN design - forged aluminium (52-C = DIN 14321/75-B = DIN 14322/110-A = DIN 14323)



CONNECT TANK TRUCK BRASS 252



- Brass tank truck coupling
- according to EN 14420-6
- Not to be used for explosive fluids group 1 and not according to pressure equipment directive

Design, Material: material: brass



CONNECT KAMLOK ALU 253



- Kamlok coupling
- fluted nozzle for band clamp fitting
- Not to be used for explosive fluids group 1 and not according to pressure equipment directive

Design, Material: material: aluminium



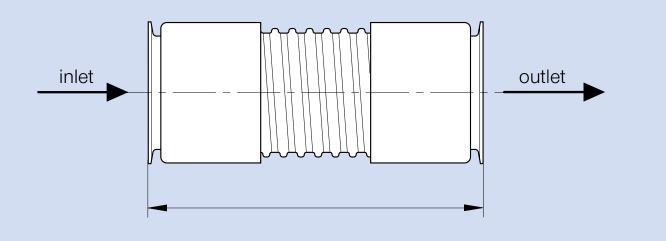
CONNECT KARDAN 254



- Kardan coupling
- Not to be used for explosive fluids group 1 and not according to pressure equipment directive

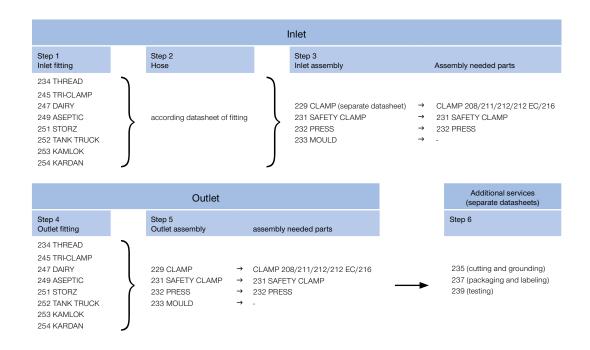
Design, Material: material: galvanized steel; incl. sealing ring made of NBR





ASSEMBLING CONFIGURATOR

Info





NORRES.COM - Tracking, stock enquiries, shop

Information

The NORRES website provides critical information – transparently

NORRES delivers information 24/7. No matter, which time or day, the NORRES customer portal is always available:

- Stock enquiries without login/account
- Delivery status: Just input your order number and get detailed tracking information
- Additional functionalities available with an user account:
 - Add your favorites for quick future reference
 - Review your specific conditions
 - Order directly via the B2B shop

With norres.com customers and partners of NORRES save time and profit from a boost in organisational efficiency. The always-available, quick overview over the whole NORRES product range as well as order-specific status updates mean a clear benefit and NORRES service for partners and customers.





NORRES Schlauchtechnik GmbH

Am Stadthafen 12-16 45881 Gelsenkirchen **GERMANY**

+49 209 8 00 00 0 Phone Fax +49 209 8 00 00 99 99 info@norres.de F-Mail

www.norres.com

NORRES France SARL

27 D rue des Blancs Monts Z.A.C. Les Blancs Monts 51350 Cormontreuil **FRANCE**

Phone +33 3 26 35 95 41 info@norres.fr F-Mail

www.norres.fr

NORRES UK LTD

Unit 10, Mount Street Business Park Nechells, Birmingham, B7 5QU UNITED KINGDOM

Phone +44 121 328 5426 E-Mail info@norres.co.uk

www.norres.co.uk

Jarl Elmgren AB - Sweden

A company of the NORRES Group Kristinebergsvägen 17 302 41 Halmstad **SWEDEN**

Phone +46 35 37 96 5 F-Mail jarl@jeab.se

www.jeab.se

诺锐软管科技 (上海) 有限公司

+86 21 400 920 8958 info@norres.cn

NORRES Polska Sp. z o.o.

ul. Rolna 9 Sady k. Poznania 62-080 Tarnowo Podgórne **POLAND**

Phone +48 61 293 31 80 info@norres.pl F-Mail www.norres.pl

NORRES Czech s.r.o

Novoveská 552/5j 709 00 Ostrava, Mariánské Hory CZECH REPUBLIC +420 555 501 901 Phone E-Mail info@norres.cz

www.norres.cz

De Bernardi S.r.l. - Italy

A company of the NORRES Group Via Fermi Enrico, 5 20047 Cusago (MI) ITALY

Phone +39 02 90 39 08 21 info@debernarditubi.it F-Mail www.debernarditubi.it

NORRES North America Inc.

701 W. Chippewa Ave, Ste 200 South Bend, IN 46614 **UNITED STATES**

Phone +1 574 232 90 61 Toll Free +1 855 NORRES 0 info@norres.us F-Mail

www.norres.us

NORRES Hose Technology (Shanghai) Co., Ltd. NORRES Taiwan Co,. Ltd.

上海浦东新区上丰路955号4幢一层西首

West of Floor 1, Building 4, No. 955, Shang Feng Rd., Pudong, 201201 Shanghai P.R. CHINA

Phone E-Mail www.norres.cn www.sh-norres.com

台灣諾銳有限公司

桃園市蘆竹區經國路892號5樓

5F., No. 892, Jingguo Rd., Luzhu Dist.

Taoyuan City 33858 TAIWAN (R.O.C.)

Phone +886 3 356 0696 E-Mail info@norres.tw www.norres.tw





