





- Flame retardant to UL 94 V0
- Hydrolysis resistant
- Approved for use in the food industry
- Antistatic
- Halogen-free
- Free of paint-wetting impairment substances to FN 942 010

Plastic tubing

Product range overview



Version	Type	Ø [mm]	Colour										Operating medium			
			Silver	Blue	Black	Yellow	Green	Red	Brown	White	Natural	Blue/black	Compressed air	Vacuum	Water (not drinking water)	
Standard O.D. tubing		Outside Ø														
	PAN Polyamide	4, 6, 8, 10, 12, 16	■	-	-	-	-	-	-	-	-	-	-	■	■	-
	PAN-VO Polyamide	6, 8, 10, 12	-	■	■	■	■	■	■	■	■	-	-	■	■	■
	PFAN Perfluor-alkoxyalkan	4, 6, 8, 10, 12	-	-	-	-	-	-	-	-	-	■	-	■	■	■
	PLN Polyethylene	4, 6, 8, 10, 12	-	-	■	-	-	-	-	-	-	■	-	■	■	■
	PUN Polyurethane	3, 4, 6, 8, 10, 12, 16	■	■	■	■	■	■	■	-	-	-	-	■	■	-
	PUN-DUO Polyurethane	4, 6, 8, 10	■	-	-	-	-	-	-	-	-	-	■	■	■	-
	PUN-E Polyurethane	4, 6, 8, 10, 12	■	■	■	-	-	-	-	-	-	-	-	■	■	-
	PUN-CM Polyurethane	4, 6, 8, 10, 12	-	-	■	-	-	-	-	-	-	-	-	■	■	-
	PUN-H Polyurethane	3, 4, 6, 8, 10, 12, 16	-	■	■	-	-	-	-	-	-	■	-	■	■	■
	PUN-H-DUO Polyurethane	4, 6, 8, 10	-	-	-	-	-	-	-	-	-	-	■	■	■	■
	PUN-VO Polyurethane	6, 8, 10, 12	-	■	■	■	■	■	■	■	■	-	-	■	■	-
Standard I.D. tubing		Inside Ø														
	PL Polyethylene	3, 4, 6	-	■	■	-	-	-	-	-	-	■	-	■	■	■
	PL-9/13 Polyvinyl chloride ¹⁾	9, 13	-	■	-	-	-	-	-	-	-	-	-	■	-	-
	PP Polyamide	3, 4, 6	-	-	-	-	-	-	-	-	-	■	-	■	■	-
	PU Polyurethane	2, 3, 4, 6, 8	-	■	■	-	-	-	-	-	-	-	-	■	■	-
	PU-9/13 Polyurethane ¹⁾	9, 13	-	■	■	-	-	-	-	-	-	-	-	■	■	Ø13
	PU-DUO Polyurethane	2, 3, 4, 6, 8	-	-	-	-	-	-	-	-	-	-	■	■	■	-
	PCN Polyvinyl chloride	4	-	-	-	-	-	-	-	-	-	■	-	■	-	■
	P Nitrile rubber	6, 9, 13, 19	-	■	■	-	-	-	-	-	-	-	-	■	■	■
	PX Nitrile rubber	4, 6, 9	■	-	-	-	-	-	-	-	-	-	-	■	■	■

1) fibre-reinforced

Plastic tubing

Product range overview





Type	Food industry approval	Fire protection classification to UL 94	Antistatic	Halogen-free	PWS-free to FN 942 010	Suitable for chain link trunking	German Technical Control Board (TÜV) tested	Resistance						Shore hardness (D)	→ Page
								Chemicals	Microbes	UV radiation	Hydrolysis	Stress cracks			
Standard O.D. tubing															
PAN	-	-	-	■	■	■	■	+	++	+	+	+	55	3 / 5.2-7	
PAN-VO	-	■	-	-	■	■	-	+	++	++	+	+	55	3 / 5.2-8	
PFAN	■	■	-	■	■	-	■	++	++	++	++	++	60	3 / 5.2-10	
PLN	■	-	-	■	■	-	■	++	++	++ ¹⁾	++	+	50	3 / 5.2-11	
PUN	-	-	-	■	■	■	■	-	-	++ ¹⁾	+	++	52	3 / 5.2-12	
PUN-DUO	-	-	-	■	■	■	■	-	-	+	+	+	52	3 / 5.2-14	
PUN-E	-	-	-	■	■	■	-	-	-	++	+	+	52	3 / 5.2-15	
PUN-CM	-	-	■	■	■	■	-	-	-	++	+	+	52	3 / 5.2-16	
PUN-H	■	-	-	■	■	■	■	+	++	++ ¹⁾	++	+	52	3 / 5.2-17	
PUN-H-DUO	■	-	-	■	■	■	■	+	++	++	++	+	52	3 / 5.2-18	
PUN-VO	-	■	-	■	■	■	■	+	++	++ ¹⁾	++	+	54	3 / 5.2-19	
Standard I.D. tubing															
PL	■	-	-	■	■	-	■	++	++	++ ¹⁾	++	+	-	3 / 5.2-22	
PL-9/13	-	-	-	-	■	-	-	-	++	+	+	+	-	3 / 5.2-23	
PP	-	-	-	■	■	■	■	+	++	+	+	+	55	3 / 5.2-24	
PU	-	-	-	■	■	■	■	-	-	++ ¹⁾	+	+	52	3 / 5.2-25	
PU-9/13	-	-	-	■	■	■	■	-	-	++ ¹⁾	+	+	52	3 / 5.2-25	
PU-DUO	-	-	-	■	■	■	■	-	-	+	+	+	52	3 / 5.2-26	
PCN	-	-	-	-	-	-	-	-	-	-	-	-	-	3 / 5.2-27	
P	-	-	-	-	-	-	-	-	-	-	-	-	-	3 / 5.2-27	
PX	-	-	-	-	-	-	-	-	-	-	-	-	-	3 / 5.2-27	

- ++ Highly suitable
- + Limited suitability (upon request)
- Unsuitable
- 1) Black
- 2) Shore hardness (A)

Spiral plastic tubing

Product range overview



Version	Type	∅ [mm]	Colour			Operating medium		
			Blue	Black	Blue/black	Compressed air	Vacuum	Water (not drinking water)
Spiral tubing		Outside ∅						
	PUN-S Polyurethane	4, 6, 8, 10, 12	■	■	-	■	■	-
	PUN-S-DUO Polyurethane	4, 6, 8, 10, 12	-	-	■	■	■	-
Spiral tubing, pre-assembled		Inside ∅						
	PUN-SG Polyurethane	6.4; 7.9	■	-	-	■	■	■
	PPS Polyamide	4.75; 6.35	■	-	-	■	■	■

Spiral plastic tubing

Product range overview



Type	Food industry approval	Fire protection classification to UL 94	Antistatic	Halogen-free	PWIS-free to FN 942 010	Suitable for chain link trunking	German Technical Control Board (TÜV) tested	Resistance						Shore hardness (D)	→ Page
								Chemicals	Microbes	UV radiation	Hydrolysis	Stress cracks			
Spiral tubing															
PUN-S	-	-	-	■	■	■	■	-	-	++ ¹⁾	+	++	52	3 / 5.2-29	
PUN-S-DUO	-	-	-	■	■	■	■	-	-	+	+	+	52	3 / 5.2-31	
Spiral tubing, pre-assembled															
PUN-SG	-	-	-	■	■	-	-	+	++	+	++	+	87 ³⁾	3 / 5.2-32	
PPS	-	-	-	■	■	■	-	+	++	+	+	+	60	3 / 5.2-33	

- ++ Highly suitable
- + Limited suitability (upon request)
- Unsuitable
- 1) Black
- 3) Shore hardness (A)

Plastic tubing, standard O.D.

Type codes



PUN – [] – 12x2 – [] – BL – 200

Material

PAN	Polyamide
PFAN	Perfluor-alkoxyalkan
PLN	Polyethylene
PUN	Polyurethane

Certification

E	Economy
CM	Antistatic
H	Hydrolysis resistant
V0	Flame retardant to UL 94 V0

Outside \varnothing x wall thickness [mm]

Twin tubing

DUO	Twin tubing
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Colour

SW	Black
BL	Blue
GN	Green
RT	Red
WS	White
GE	Yellow
BR	Brown
SI	Silver
NT	Natural
BS	Blue/black

Packaging unit [m]

Plastic tubing PAN, standard O.D.

Technical data



Plastic tubing PAN

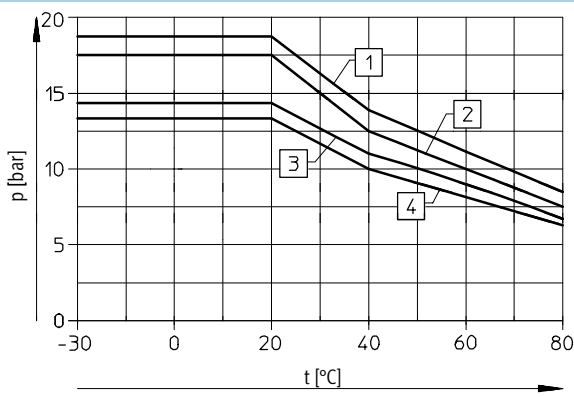
High thermal and mechanical load capacities.

Temperature range
-30 ... +80 °C

Material: Polyamide
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



- 1 PAN-6
- 2 PAN-10/12

- 3 PAN-4/8
- 4 PAN-16

Possible fittings



Push-in fittings QS,
Quick Star¹⁾
→ 3 / 5.4-38



Barbed fittings CN
→ 3 / 5.4-108



Push-in fittings QS-F,
Quick Star, metal
→ 3 / 5.4-81



Quick connectors CK
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.9	18	0.006	Silver	152 697	PAN-4x0,75-SI	50
6	4	32	0.016		152 699	PAN-6x1-SI	50
8	5.9	43	0.024		152 700	PAN-8x1,25-SI	50
10	7	58	0.042		152 701	PAN-10x1,5-SI	50
12	8.4	64	0.060		152 702	PAN-12x1,75-SI	50
16	12	94	0.092		152 703	PAN-16x2-SI	50

* Packaging unit

Plastic tubing PAN-V0, standard O.D., flame retardant

Technical data



Plastic tubing PAN-V0

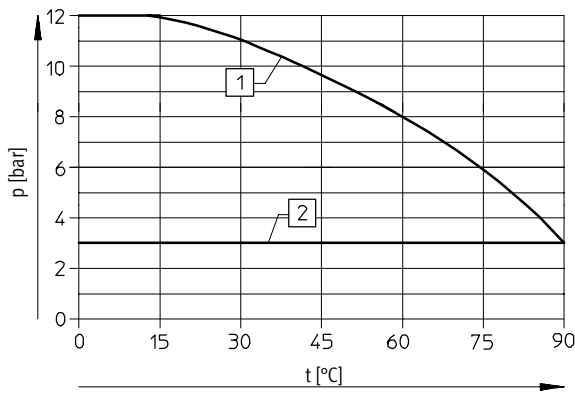
PVC casing, flame retardant to UL 94
 VO. Casing must be cut to length X
 (see table) before assembly.

- 🌡️ - Temperature range
 -30 ... +90 °C

Material:
 Outer tubing: Polyvinyl chloride
 Inner tubing: Polyamide



Operating pressure p as a function of temperature t



- 1 Operating medium air
- 2 Operating medium oil/water

Possible fittings



Push-in fittings QS-V0,
 Quick Star, flame-retardant
 → 3 / 5.4-97

Accessories



Tubing cutter PAN-V0S-...
 → 3 / 5.10-11

Dimensions and ordering data

For push-in fitting O.D. D1 [mm]	O.D. [mm]	I.D. [mm]	Wall thickness of outside tubing [mm]	Max. cut length X [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
6	8	4	1	17	30	0.049	Black	160 550	PAN-V0-6x1-SW	50
							Blue	525 466	PAN-V0-6x1-BL	20
							Green	525 470	PAN-V0-6x1-GN	20
							Red	525 474	PAN-V0-6x1-RT	20
							White	525 478	PAN-V0-6x1-WS	20
							Yellow	525 482	PAN-V0-6x1-GE	20
							Brown	525 486	PAN-V0-6x1-BR	20
8	10	6	1	18	45	0.065	Black	160 551	PAN-V0-8x1-SW	50
							Blue	525 467	PAN-V0-8x1-BL	20
							Green	525 471	PAN-V0-8x1-GN	20
							Red	525 475	PAN-V0-8x1-RT	20
							White	525 479	PAN-V0-8x1-WS	20
							Yellow	525 483	PAN-V0-8x1-GE	20
							Brown	525 487	PAN-V0-8x1-BR	20

* Packaging unit

Plastic tubing PAN-V0, standard O.D., flame retardant



Technical data

Dimensions and ordering data										
For push-in fitting	O.D.	I.D.	Wall thickness of outside tubing	Max. cut length X	Min. bending radius	Weight	Colour	Part No.	Type	PU*
D1	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]				[m]
10	12	7.5	1	20	56	0.088	Black	160 552	PAN-V0-10x1,25-SW	50
							Blue	525 468	PAN-V0-10x1,25-BL	20
							Green	525 472	PAN-V0-10x1,25-GN	20
							Red	525 476	PAN-V0-10x1,25-RT	20
							White	525 480	PAN-V0-10x1,25-WS	20
							Yellow	525 484	PAN-V0-10x1,25-GE	20
							Brown	525 488	PAN-V0-10x1,25-BR	20
12	14	9	1	23	65	0.133	Black	160 553	PAN-V0-12x1,5-SW	50
							Blue	525 469	PAN-V0-12x1,5-BL	20
							Green	525 473	PAN-V0-12x1,5-GN	20
							Red	525 477	PAN-V0-12x1,5-RT	20
							White	525 481	PAN-V0-12x1,5-WS	20
							Yellow	525 485	PAN-V0-12x1,5-GE	20
							Brown	525 489	PAN-V0-12x1,5-BR	20

* Packaging unit

Plastic tubing PFAN, standard O.D.

Technical data



Plastic tubing PFAN

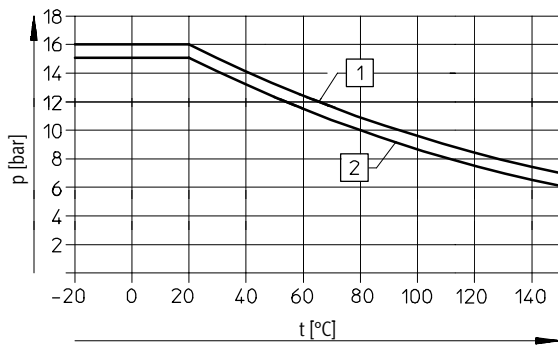
Pneumatic tubing with resistance to high temperatures and chemicals.

- - Temperature range
-20 ... +150 °C

Material:
Perfluor-alkoxyalkan



Operating pressure p as a function of temperature t



- 1 PFAN-6/10/12
- 2 PFAN-4/8

Possible fittings



Push-in fittings QS-F,
Quick Star, metal
→ 3 / 5.4-81



Quick connectors CK
→ 3 / 5.5-5



Push-in fittings CRQS, Quick Star,
stainless steel¹⁾
→ 3 / 5.4-91

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.9	37	0.012	Natural	197 061	PFAN-4x0,75-NT	50
6	4	50	0.034		197 062	PFAN-6x1-NT	50
8	5.9	110	0.049		197 063	PFAN-8x1,25-NT	50
10	7	140	0.087		197 064	PFAN-10x1,5-NT	50
12	8.4	165	0.125		197 065	PFAN-12x1,75-NT	50

* Packaging unit

Plastic tubing PLN, standard O.D.

Technical data



Plastic tubing PLN

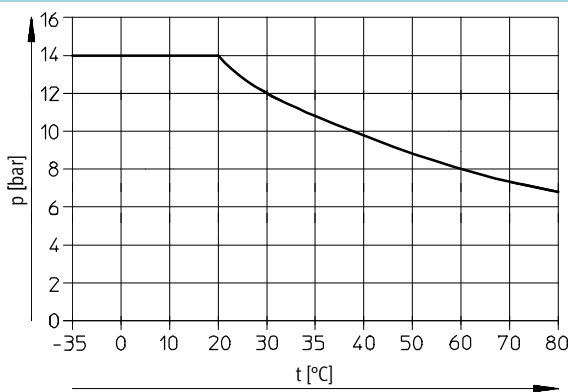
Polyethylene tubing is distinguished by great resistance to chemicals and hydrolysis. It is resistant to most cleaning agents and lubricants.

Temperature range
-30 ... +80 °C

Material:
Polyethylene
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star
→ 3 / 5.4-38



Barbed fittings CN
→ 3 / 5.4-108



Push-in fittings QS-F,
Quick Star, metal¹⁾
→ 3 / 5.4-81



Quick connectors CK
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.9	25	0.0056	Natur	193 403	PLN-4x0,75-NT	50
				Black	195 280	PLN-4x0,75-SW	50
6	4	32	0.0147	Natur	193 404	PLN-6x1-NT	50
				Black	195 281	PLN-6x1-SW	50
8	5.9	50	0.0214	Natur	193 405	PLN-8x1,25-NT	50
				Black	195 282	PLN-8x1,25-SW	50
10	7	57	0.0375	Natur	193 406	PLN-10x1,5-NT	50
				Black	195 283	PLN-10x1,5-SW	50
12	8.4	65	0.0540	Natur	193 407	PLN-12x1,75-NT	50
				Black	195 284	PLN-12x1,75-SW	50

* Packaging unit

Plastic tubing PUN, standard O.D.

Technical data



Plastic tubing PUN

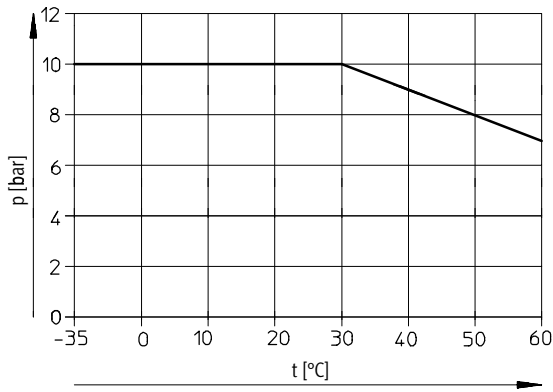
Highly flexible plastic tubing.

- - Temperature range
-35 ... +60 °C

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star¹⁾
→ 3 / 5.4-38



Quick connectors CK
→ 3 / 5.5-5



Push-in fittings QS-F,
Quick Star, metal
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
3.0	2.1	12.5	0.004	Silver	152 583	PUN-3x0,5-SI	50
				Silver	525 738	PUN-3 x 0,5-SI-500	500
				Blue	159 660	PUN-3x0,5-BL	50
				Blue	525 745	PUN-3x0,5-BL-500	500
				Black	159 661	PUN-3x0,5-SW	50
				Yellow	178 416	PUN-3x0,5-GE	50
				Green	178 423	PUN-3x0,5-GN	50
				Red	178 409	PUN-3x0,5-RT	50
4.0	2.6	17.0	0.009	Silver	152 584	PUN-4x0,75-SI	50
				Silver	525 739	PUN-4x0,75-SI-500	500
				Blue	159 662	PUN-4x0,75-BL	50
				Blue	525 746	PUN-4x0,75-BL-500	500
				Black	159 663	PUN-4x0,75-SW	50
				Yellow	178 417	PUN-4x0,75-GE	50
				Green	178 424	PUN-4x0,75-GN	50
				Red	178 410	PUN-4x0,75-RT	50

* Packaging unit

Core Range

Plastic tubing PUN, standard O.D.



Technical data

Dimensions and ordering data							
O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
6.0	4.0	26.5	0.019	Silver	152 586	PUN-6x1-SI	50
				Silver	525 740	PUN-6x1-SI-500	500
				Blue	159 664	PUN-6x1-BL	50
				Blue	525 747	PUN-6x1-BL-500	500
				Black	159 665	PUN-6x1-SW	50
				Yellow	178 418	PUN-6x1-GE	50
				Green	178 425	PUN-6x1-GN	50
				Red	178 411	PUN-6x1-RT	50
8.0	5.7	37.0	0.030	Silver	152 587	PUN-8x1,25-SI	50
				Silver	525 741	PUN-8x1,25-SI-400	400
				Blue	159 666	PUN-8x1,25-BL	50
				Blue	525 748	PUN-8x1,25-BL-400	400
				Black	159 667	PUN-8x1,25-SW	50
				Yellow	178 419	PUN-8x1,25-GE	50
				Green	178 426	PUN-8x1,25-GN	50
				Red	178 412	PUN-8x1,25-RT	50
10.0	7.0	54.0	0.049	Silver	152 588	PUN-10x1,5-SI	50
				Silver	525 742	PUN-10x1,5-SI-300	300
				Blue	159 668	PUN-10x1,5-BL	50
				Blue	525 749	PUN-10x1,5-BL-300	300
				Black	159 669	PUN-10x1,5-SW	50
				Yellow	178 420	PUN-10x1,5-GE	50
				Green	178 427	PUN-10x1,5-GN	50
				Red	178 413	PUN-10x1,5-RT	50
12.0	8.0	62.0	0.077	Silver	152 589	PUN-12x2-SI	50
				Silver	525 743	PUN-12x2-SI-200	200
				Blue	159 670	PUN-12x2-BL	50
				Blue	252 750	PUN-12x2-BL-200	200
				Black	159 671	PUN-12x2-SW	50
				Yellow	178 421	PUN-12x2-GE	50
				Green	178 428	PUN-12x2-GN	50
				Red	178 414	PUN-12x2-RT	50
16.0	11.0	88.0	0.129	Silver	152 590	PUN-16x2,5-SI	50
				Silver	525 744	PUN-16x2,5-SI-100	100
				Blue	159 672	PUN-16x2,5-BL	50
				Blue	525 751	PUN-16x2,5-BL-100	100
				Black	159 673	PUN-16x2,5-SW	50
				Yellow	178 422	PUN-16x2,5-GE	50
				Green	178 429	PUN-16x2,5-GN	50
				Red	178 415	PUN-16x2,5-RT	50

* Packaging unit

 Core Range

Plastic tubing PUN-DUO, standard O.D.

Technical data



DUO tubing PUN-DUO

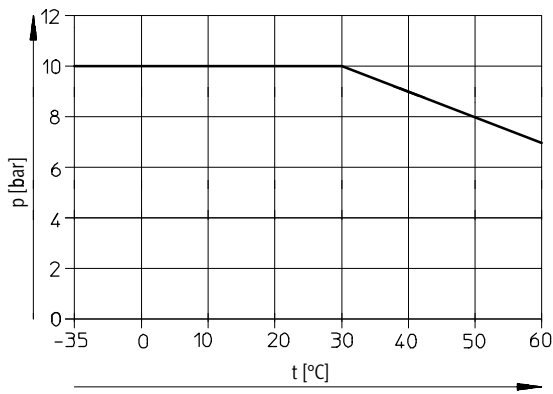
Highly flexible paired plastic tubing distinguished by great resistance to abrasion and kinks. Two lengths of tubing are fused together into a tubing pair. For fitting, the paired tubing is separated as required at both ends.

Temperature range
-35 ... +60 °C

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star¹⁾
→ 3 / 5.4-38



Quick connectors CK
→ 3 / 5.5-5



Push-in fittings QS-F,
Quick Star, metal
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.8	17	0.018	Silver	152 822	PUN-4x0,75-DUO-SI	50
	2.6			Blue/black	159 674	PUN-4x0,75-DUO-BS	50
6	4	26.5	0.038	Silver	152 823	PUN-6x1-DUO-SI	50
				Blue/black	159 675	PUN-6x1-DUO-BS	50
8	5.7	37	0.060	Silver	152 824	PUN-8x1,25-DUO-SI	50
				Blue/black	159 676	PUN-8x1,25-DUO-BS	50
10	7	54	0.098	Silver	152 825	PUN-10x1,5-DUO-SI	50
				Blue/black	159 677	PUN-10x1,5-DUO-BS	50

* Packaging unit


Plastic tubing PUN-E, standard O.D.




Technical data

Plastic tubing PUN-E

Highly flexible, hydrolysis and microbe resistant tubing

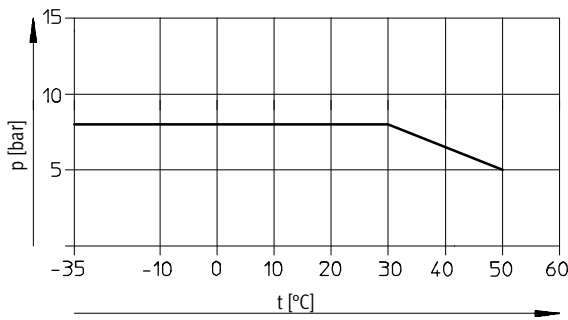
 Temperature range
-20 ... +50 °C

 Pressure
-0.95 ... +8 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star¹⁾
→ 3 / 5.4-38
→ 3 / 5.4-72



Push-in fittings QS-F,
Quick Star, metal
→ 3 / 5.4-81

1) Recommended fittings

Dimensions and ordering data

Outside Ø [mm]	Inside Ø [mm]	Min. wall thickness [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.9	0.45	30	0.008	silver	534 170	PUN-E-4x0,6-SI-500	500
					blue	534 171	PUN-E-4x0,6-BL-500	500
					black	538 465	PUN-E-4x0,6-SW	50
						538 460	PUN-E-4x0,6-SW-500	500
6	4.4	0.70	45	0.018	silver	534 172	PUN-E-6x0,8-SI-500	500
					blue	534 173	PUN-E-6x0,8-BL-500	500
					black	538 466	PUN-E-6x0,8-SW	50
						538 461	PUN-E-6x0,8-SW-500	500
8	6	0.90	50	0.026	silver	534 174	PUN-E-8x1-SI-400	400
					blue	534 175	PUN-E-8x1-BL-400	400
					black	538 467	PUN-E-8x1-SW	50
						538 462	PUN-E-8x1-SW-400	400
10	7.5	1.13	60	0.044	silver	534 176	PUN-E-10x1,25-SI-300	300
					blue	534 177	PUN-E-10x1,25-BL-300	300
					black	538 468	PUN-E-10x1,25-SW	50
						538 463	PUN-E-10x1,25-SW-300	300
12	8.8	1.35	80	0.069	silver	534 178	PUN-E-12x1,6-SI-200	200
					blue	534 179	PUN-E-12x1,6-BL-200	200
					black	538 469	PUN-E-12x1,6-SW	50
						538 464	PUN-E-12x1,6-SW-200	200

* Packaging unit


Plastic tubing PUN-CM, standard O.D., antistatic


Technical data

FESTO

Plastic tubing PUN-CM

Highly flexible plastic tubing,
 electrically conductive.
 Surface resistance $10^4 \dots 10^7 \text{ Ohm}$

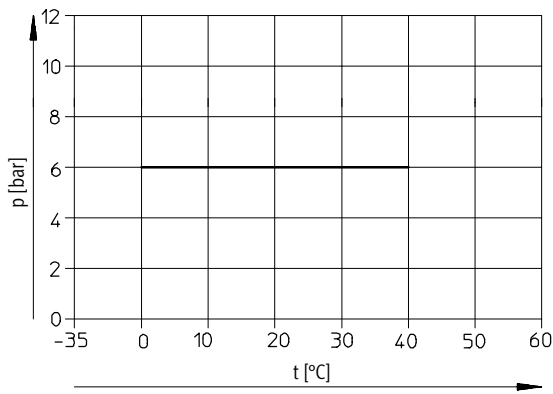
-  - Temperature range
 0 ... +40 °C

-  - Pressure
 -0,95 ... +6 bar

Material:
 Polyurethane
 Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS-F,
 Quick Star, metal
 → 3 / 5.4-81

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.5	17	0.009	Black	188 882	PUN-CM-4-SW	50
6	4	26.5	0.019		188 883	PUN-CM-6-SW	50
8	5	37	0.037		130 816	PUN-CM-8-SW 	50
10	6.5	54	0.054		130 817	PUN-CM-10-SW 	50
12	8	70	0.075		130 818	PUN-CM-12-SW 	50

* Packaging unit

Plastic tubing PUN-H, standard O.D., hydrolysis resistant



Technical data

Plastic tubing PUN-H

Approved for use in the food industry.

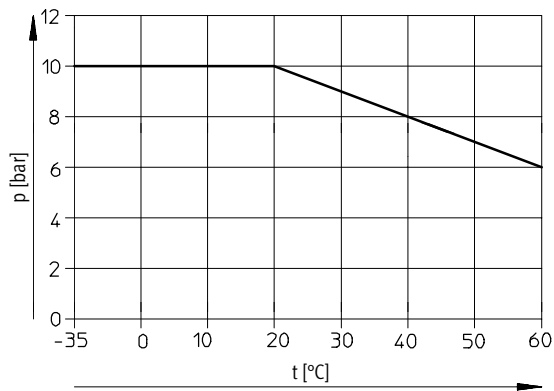
- - Temperature range
-35 ... +60 °C

- - Pressure
-0,95 ... +6 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star
→ 3 / 5.4-38



Push-in fittings QS-F,
Quick Star, metal¹⁾
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
3	2.1	12	0.0042	Natur	197 375	PUN-H-3x0,5 NT	50
				Blue	197 382	PUN-H-3x0,5 BL	50
				Black	197 389	PUN-H-3x0,5 SW	50
4	2.6	16	0.0085	Natur	197 376	PUN-H-4x0,75 NT	50
				Blue	197 383	PUN-H-4x0,75 BL	50
				Black	197 390	PUN-H-4x0,75 SW	50
6	4	26	0.0183	Natur	197 377	PUN-H-6x1 NT	50
				Blue	197 384	PUN-H-6x1 BL	50
				Black	197 391	PUN-H-6x1 SW	50
8	5.7	37	0.0287	Natur	197 378	PUN-H-8x1,25 NT	50
				Blue	197 385	PUN-H-8x1,25 BL	50
				Black	197 392	PUN-H-8x1,25 SW	50
10	7	52	0.0465	Natur	197 379	PUN-H-10x1,5 NT	50
				Blue	197 386	PUN-H-10x1,5 BL	50
				Black	197 393	PUN-H-10x1,5 SW	50
12	8	62	0.0729	Natur	197 380	PUN-H-12x2 NT	50
				Blue	197 387	PUN-H-12x2 BL	50
				Black	197 394	PUN-H-12x2 SW	50
16	11	88	0.1230	Natur	197 381	PUN-H-16x2,5 NT	50
				Blue	197 388	PUN-H-16x2,5 BL	50
				Black	197 395	PUN-H-16x2,5 SW	50

* Packaging unit

Plastic tubing PUN-H-DUO, standard O.D., hydrolysis resistant

Technical data



DUO tubing PUN-H-DUO

Highly flexible paired plastic tubing distinguished by great resistance to abrasion and kinks. Two lengths of tubing are fused together into a tubing pair. For fitting, the paired tubing is separated as required at both ends.

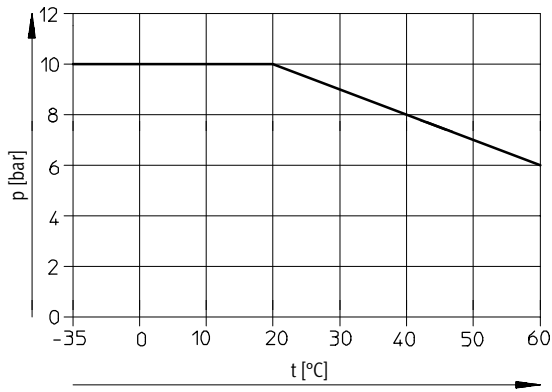
- - Temperature range
-35 ... +60 °C

- - Pressure
-0,95 ... +6 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star
→ 3 / 5.4-38



Push-in fittings QS-F,
Quick Star, metal¹⁾
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4	2.6	16	0.0170	Blue/black	197 396	PUN-H-4x0,75-DUO	50
6	4	26	0.0366	Blue/black	197 397	PUN-H-6x1-DUO	50
8	5.7	37	0.0574	Blue/black	197 398	PUN-H-8x1,25-DUO	50
10	7	52	0.0930	Blue/black	197 399	PUN-H-10x1,5-DUO	50

* Packaging unit

Plastic tubing PUN-V0, standard O.D., flame retardant



Technical data

Plastic tubing PUN-V0

Highly flexible plastic tubing, flame retardant to UL 94 V0 ... V2.

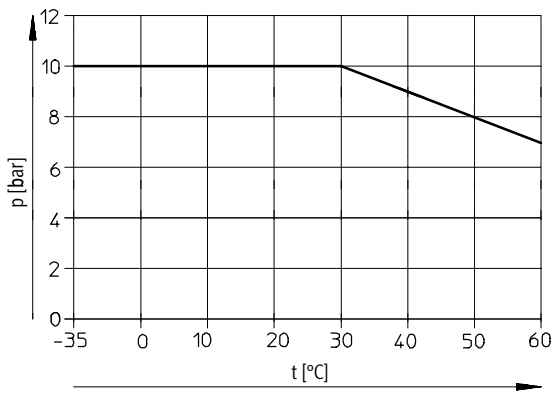
- - Temperature range
-35 ... +60 °C

- - Pressure
-0,95 ... +7 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS,
Quick Star
→ 3 / 5.4-38



Quick connectors CK
→ 3 / 5.5-5



Push-in fittings QS-F,
Quick Star, metal¹⁾
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
6	4	26.5	0.0200	Black	525 438	PUN-V0-6x1-SW	50
				Blue	525 442	PUN-V0-6x1-BL	50
				Green	525 446	PUN-V0-6x1-GN	50
				Red	525 450	PUN-V0-6x1-RT	50
				White	525 454	PUN-V0-6x1-WS	50
				Yellow	525 458	PUN-V0-6x1-GE	50
				Brown	525 462	PUN-V0-6x1-BR	50
8	5.7	37	0.0314	Black	525 439	PUN-V0-8x1,25-SW	50
				Blue	525 443	PUN-V0-8x1,25-BL	50
				Green	525 447	PUN-V0-8x1,25-GN	50
				Red	525 451	PUN-V0-8x1,25-RT	50
				White	525 455	PUN-V0-8x1,25-WS	50
				Yellow	525 459	PUN-V0-8x1,25-GE	50
				Brown	525 463	PUN-V0-8x1,25-BR	50
10	7	54	0.0509	Black	525 440	PUN-V0-10x1,5-SW	50
				Blue	525 444	PUN-V0-10x1,5-BL	50
				Green	525 448	PUN-V0-10x1,5-GN	50
				Red	525 452	PUN-V0-10x1,5-RT	50
				White	525 456	PUN-V0-10x1,5-WS	50
				Yellow	525 460	PUN-V0-10x1,5-GE	50
				Brown	525 464	PUN-V0-10x1,5-BR	50

* Packaging unit

Plastic tubing PUN-V0, standard O.D., flame retardant



Technical data

Dimensions and ordering data							
O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
12	8	62	0.0798	Black	525 441	PUN-V0-12x2-SW	50
				Blue	525 445	PUN-V0-12x2-BL	50
				Green	525 449	PUN-V0-12x2-GN	50
				Red	525 453	PUN-V0-12x2-RT	50
				White	525 457	PUN-V0-12x2-WS	50
				Yellow	525 461	PUN-V0-12x2-GE	50
				Brown	525 465	PUN-V0-12x2-BR	50

* Packaging unit

Plastic tubing, standard I.D.

Type codes

	PU	8		BL
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Material	
PL	Polyethylene, I.D. 3, 4, 6
PL	Polyvinyl chloride, O.D. 9, 13
PP	Polyamide
PU	Polyurethane
PCN	Polyvinyl chloride
P	Nitrile rubber
PX	Nitrile rubber

Internal Ø [mm]

Twin tubing	
DUO	Twin tubing

Colour	
SW	Black
BL	Blue
SI	Silver
NT	Natural
BS	Blue/black


Plastic tubing PL, standard I.D.


Technical data



Plastic tubing PL

Tubing types PL-3, PL-4 and PL-6 are approved for use in the production of foodstuffs and cosmetics as per the Food Act §2.

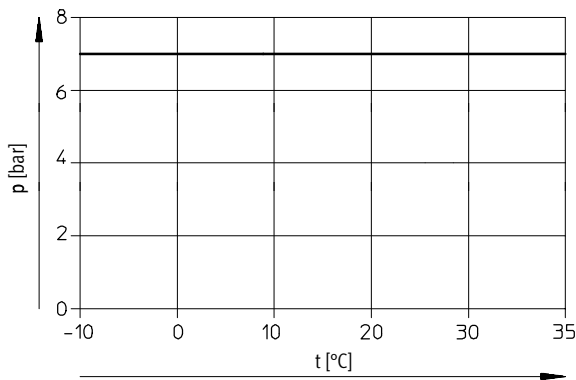
-  - Temperature range
-10 ... +35 °C

-  - Pressure
-0.95 ... +7 °C

Material:
Polyethylene
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Barbed fittings CN
→ 3 / 5.4-108



Quick connectors CK¹⁾
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4.3	3	18	0.007	Natural	3 856	PL-3-NT	50
				Blue	3 453	PL-3-BL	50
				Black	4 640	PL-3-SW	50
6.2	4	22.5	0.016	Natural	2 236	PL-4-NT	50
				Blue	3 861	PL-4-BL	50
				Black	4 641	PL-4-SW	50
8.4	6	39	0.025	Natural	2 237	PL-6-NT	50
				Blue	3 862	PL-6-BL	50
				Black	4 642	PL-6-SW	50

* Packaging unit

Plastic tubing PL, standard I.D.

Technical data



Plastic tubing PL

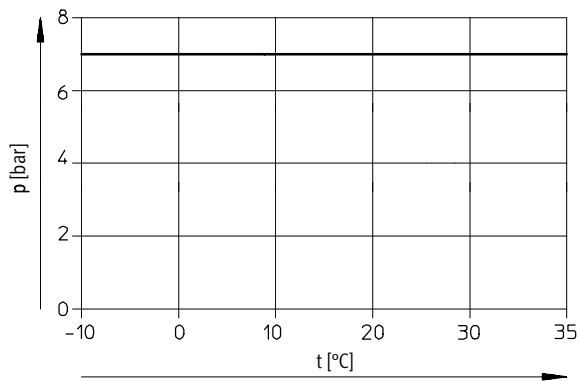
- - Temperature range
-10 ... +35 °C

- - Pressure
0 ... 7 °C

Material:
Polyvinyl chloride with reinforcing fabric
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Quick connectors CK
→ 3 / 5.5-5

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
11.6	9	85	0.049	Blue	2 238	PL-9-BL	50
17.6	13	100	0.135	Blue	4 103	PL-13-BL	50

* Packaging unit

Plastic tubing PP, standard I.D.

Technical data



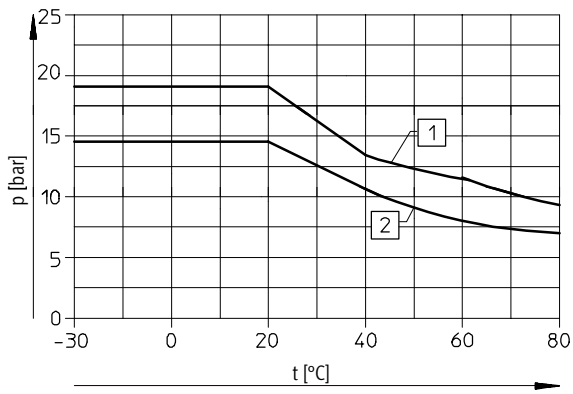
Plastic tubing PP

- 🌡️ - Temperature range
-30 ... +80 °C

Material:
Polyamide
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



- 1) PP-4
- 2) PP-3/6

Possible fittings



Barbed fittings CN
→ 3 / 5.4-108



Quick connectors CK¹⁾
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
4.3	3	19	0.007	Natural	4 572	PP-3-NT	50
6	4	27	0.016	Natural	4 231	PP-4-NT	50
8.2	6	50	0.025	Natural	4 191	PP-6-NT	50

* Packaging unit

Plastic tubing PU, standard I.D.

Technical data



Plastic tubing PU

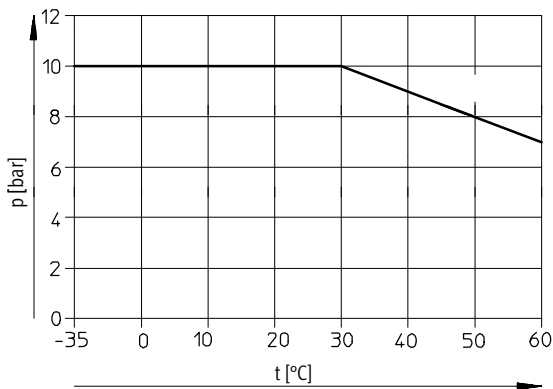
Highly flexible plastic tubing distinguished by its great resistance to abrasion and kinks.

Temperature range
-35 ... +60 °C

Material:
Polyurethane
PU-9 and PU-13 Polyurethane with reinforcing fabric
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Barbed fittings CN
→ 3 / 5.4-108



Quick connectors CK¹⁾
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
3.2	2.2	13	0.005	Blue	13 365	PU-2-BL	50
				Black	13 366	PU-2-SW	50
4.3	2.9	14	0.009	Blue	5 732	PU-3-BL	50
				Black	5 731	PU-3-SW	50
6.1	3.9	20	0.021	Blue	6 204	PU-4-BL	50
				Black	5 733	PU-4-SW	50
8.3	5.9	36	0.033	Blue	9 159	PU-6-BL	50
				Black	6 731	PU-6-SW	50
11	8	84	0.055	Blue	8 976	PU-8-BL	50
				Black	11 255	PU-8-SW	50
Fibre-reinforced							
11.6	9	76	0.051	Black	12 134	PU-9-SW	50
17.6	13	83	0.140	Black	12 133	PU-13-SW	50

* Packaging unit

Plastic tubing PU-DUO, standard I.D.

Technical data



DUO tubing PU-DUO

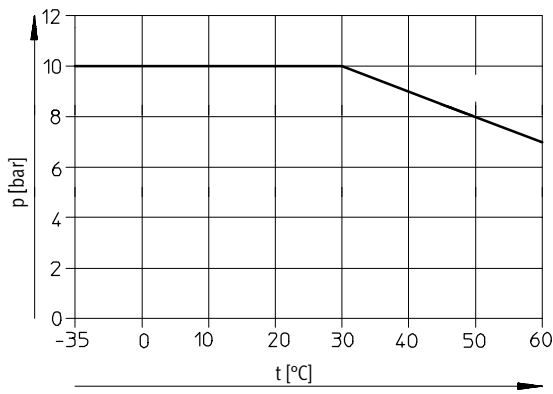
Highly flexible paired plastic tubing distinguished by great resistance to abrasion and kinks. Two lengths of tubing are fused together into a tubing pair. For fitting, the paired tubing is separated as required at both ends.

Temperature range
-35 ... +60 °C

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Barbed fittings CN
→ 3 / 5.4-108



Quick connectors CK¹⁾
→ 3 / 5.5-5

1) Recommended fitting

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
3.2	2.2	13	0.010	Blue/black	19 581	PU-2-DUO-BS	50
4.3	2.9	14	0.019	Blue/black	11 958	PU-3-DUO-BS	50
6.1	3.9	19.5	0.042	Blue/black	11 959	PU-4-DUO-BS	50
8.3	5.9	36	0.066	Blue/black	11 960	PU-6-DUO-BS	50
11	8	84	0.110	Blue/black	13 295	PU-8-DUO-BS	50

* Packaging unit


Plastic tubing PCN/P/PX

Technical data

FESTO

Plastic tubing PCN

for use with condensate drains on D series service units

-  - Temperature range
-10 ... +60 °C


Material:
Polyvinyl chloride with reinforcing fabric



Dimensions and ordering data						
O.D. [mm]	I.D. [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
6.5	4	0.025	Natural	7 134	PCN-4-NT	50

Plastic tubing P

Tubing for barbed hose fitting N

-  - Temperature range
-20 ... +80 °C


Material:
Nitrile rubber



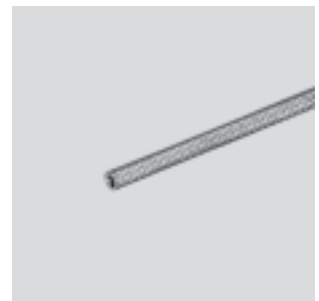
Dimensions and ordering data							
O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
13	6	40	0.145	Blue	2 231	P-6	40
16	9	50	0.185	Blue	2 232	P-9	40
23	13	100	0.400	Black	2 234	P-13	40
31	19	200	0.719	Black	2 235	P-19	40

Metal braided shielded hose PX

for fitting CX
Heavy duty tubing

-  - Temperature range
-20 ... +80 °C

Material:
Nitrile rubber with metal braiding



Dimensions and ordering data							
O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU* [m]
7	4	20	0.101	Silver	4 093	PX-4	40
9	6	30	0.140	Silver	4 094	PX-6	40
12	9	45	0.171	Silver	4 095	PX-9	40

* Packaging unit

Spiral plastic tubing

Type codes

PUN - 8 x 1.25 - S - 1 - DUO - BL

Material

PUN	Polyurethane
PPS	Polyamide

Outside Ø [mm]

Wall thickness [mm]

Design

S	Spiral
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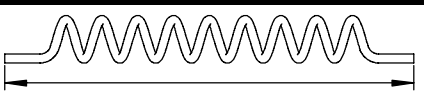
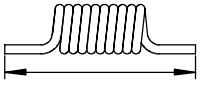
Working length [m]


Twin tubing

DUO	Twin tubing
-----	-------------

Colour

SW	Black
BL	Blue
BS	Blue/black

Length specifications		
	Working length	With tensile load, 80% of the maximum section length
	Block length	Without tensile load


 - Note
The working length represents 80% of the maximum permissible expansion. This maximum expansion is the limiting value before permanent deformation takes place.


Spiral plastic tubing PUN-S

Technical data

Spiral plastic tubing PUN-S

Highly flexible plastic tubing

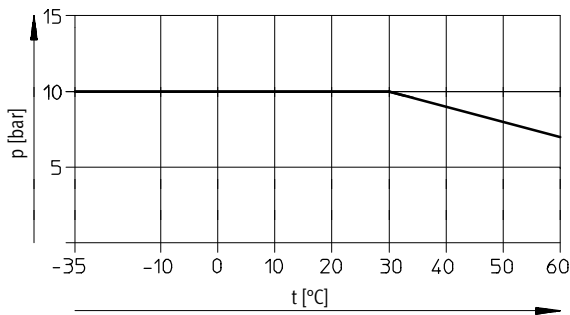
 Temperature range
-35 ... +60 °C

 Pressure
-0.95 ... +7 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS,
Quick Star¹⁾
→ 3 / 5.4-38



Quick connector CK
→ 3 / 5.5-5



Push-in fitting QS-F,
Quick Star, metal
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data								
Outside Ø	Inside Ø	Winding Ø	Working length	Number of windings	Weight	Colour	Part No.	Type
[mm]	[mm]	[mm]	[m]		[kg/m]			
4	2.6	25	0.5	20	0.013	Blue	197 587	PUN-4x0,75-S-0,5-BL
						Black	197 602	PUN-4x0,75-S-0,5-SW
				Blue	197 588	PUN-4x0,75-S-1-BL		
			1	45	0.027	Black	197 603	PUN-4x0,75-S-1-SW
						Blue	197 589	PUN-4x0,75-S-1,5-BL
				Black	197 604	PUN-4x0,75-S-1,5-SW		
6	4	40	1	23	0.051	Blue	197 590	PUN-6x1-S-1-BL
						Black	197 605	PUN-6x1-S-1-SW
			2	52	0.110	Blue	197 591	PUN-6x1-S-2-BL
						Black	197 606	PUN-6x1-S-2-SW
			6	168	0.350	Blue	197 592	PUN-6x1-S-6-BL
						Black	197 607	PUN-6x1-S-6-SW
8	5.7	60	1	12	0.650	Blue	197 593	PUN-8x1,25-S-1-BL
						Black	197 608	PUN-8x1,25-S-1-SW
			2	27	0.140	Blue	197 594	PUN-8x1,25-S-2-BL
						Black	197 609	PUN-8x1,25-S-2-SW
			6	87	0.440	Blue	197 595	PUN-8x1,25-S-6-BL
						Black	197 610	PUN-8x1,25-S-6-SW

Spiral plastic tubing PUN-S

Technical data


Dimensions and ordering data								
Outside Ø	Inside Ø	Winding Ø	Working length	Number of windings	Weight	Colour	Part No.	Type
[mm]	[mm]	[mm]	[m]		[kg/m]			
10	7	80	1	9.5	0.110	Blue	197 596	PUN-10x1,5-S-1-BL
						Black	197 611	PUN-10x1,5-S-1-SW
			2	22	0.250	Blue	197 597	PUN-10x1,5-S-2-BL
						Black	197 612	PUN-10x1,5-S-2-SW
			6	70	0.760	Blue	197 598	PUN-10x1,5-S-6-BL
						Black	197 613	PUN-10x1,5-S-6-SW
12	8	95	1	9	0.200	Blue	197 599	PUN-12x2-S-1-BL
						Black	197 614	PUN-12x2-S-1-SW
			2	20	0.420	Blue	197 600	PUN-12x2-S-2-BL
						Black	197 615	PUN-12x2-S-2-SW
			6	64	1.300	Blue	197 601	PUN-12x2-S-6-BL
						Black	197 616	PUN-12x2-S-6-SW

Spiral plastic tubing PUN-S-DUO


Technical data



**DUO spiral plastic tubing
PUN-S-DUO**

 Temperature range
-35 ... +60 °C

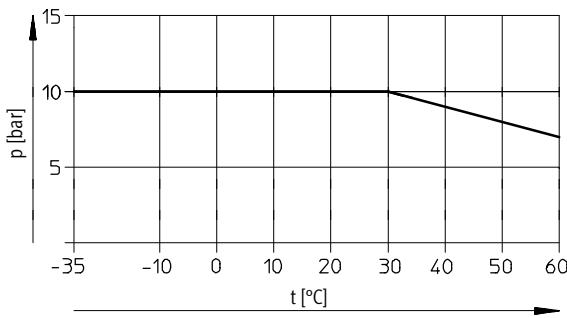
Highly flexible plastic tubing

 Pressure
-0.95 ... +7 bar

Material:
Polyurethane
Free of copper, PTFE and silicone



Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS,
Quick Star¹⁾
→ 3 / 5.4-38



Quick connector CK
→ 3 / 5.5-5



Push-in fitting QS-F,
Quick Star, metal
→ 3 / 5.4-81

1) Recommended fitting

Dimensions and ordering data

Outside Ø [mm]	Inside Ø [mm]	Winding Ø [mm]	Working length [m]	Number of windings	Weight [kg/m]	Colour	Part No.	Type
4	2.6	25	0.5	20	0.025	Blue/black	197 617	PUN-4x0,75-S-0,5-DUO-BS
			1	45	0.055		197 618	PUN-4x0,75-S-1-DUO-BS
			1.5	70	0.084		197 619	PUN-4x0,75-S-1,5-DUO-BS
6	4	40	1	23	0.102	Blue/black	197 620	PUN-6x1-S-1-DUO-BS
			2	52	0.230		197 621	PUN-6x1-S-2-DUO-BS
			6	168	0.700		197 622	PUN-6x1-S-6-DUO-BS
8	5.7	60	1	12	0.130	Blue/black	197 623	PUN-8x1,25-S-1-DUO-BS
			2	27	0.280		197 624	PUN-8x1,25-S-2-DUO-BS
			6	87	0.870		197 625	PUN-8x1,25-S-6-DUO-BS
10	7	80	1	9.5	0.220	Blue/black	197 626	PUN-10x1,5-S-1-DUO-BS
			2	22	0.490		197 627	PUN-10x1,5-S-2-DUO-BS
			6	70	1.520		197 628	PUN-10x1,5-S-6-DUO-BS
12	8	95	1	9	0.390	Blue/black	197 629	PUN-12x2-S-1-DUO-BS
			2	20	0.830		197 630	PUN-12x2-S-2-DUO-BS
			6	64	2.600		197 631	PUN-12x2-S-6-DUO-BS

Spiral plastic tubing PUN-SG, pre-assembled

Technical data



Spiral plastic tubing PUN-SG

- - Temperature range
-40 ... +60 °C

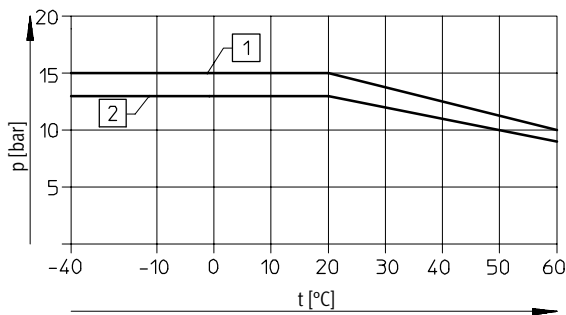
Highly flexible and hydrolysis resistant pneumatic tubing with fabric reinforcing and captive rotatable fittings.

- - Pressure
-0.95 ... +9 bar

Material:
Polyurethane



Operating pressure p as a function of temperature t



- 1 PUN-10x1,5-SG
- 2 PUN-12x2-SG

Dimensions and ordering data

Outside Ø [mm]	Inside Ø [mm]	Connection	Working length [m]	Weight [kg/m]	Colour	Part No.	Type
9.5	6.4	G $\frac{1}{4}$	2.4	0.180	Blue	533 463	PUN-10x1,5-SG-2,4-BL- $\frac{1}{4}$
			4.8	0.340		533 464	PUN-10x1,5-SG-4,8-BL- $\frac{1}{4}$
			6	0.430		533 465	PUN-10x1,5-SG-6-BL- $\frac{1}{4}$
11.7	7.9	G $\frac{3}{8}$	4.8	0.480		533 466	PUN-12x2-SG-4,8-BL- $\frac{3}{8}$
			6	0.560		533 467	PUN-12x2-SG-6-BL- $\frac{3}{8}$

Spiral plastic tubing PPS, pre-assembled

Technical data



Spiral plastic tubing PPS

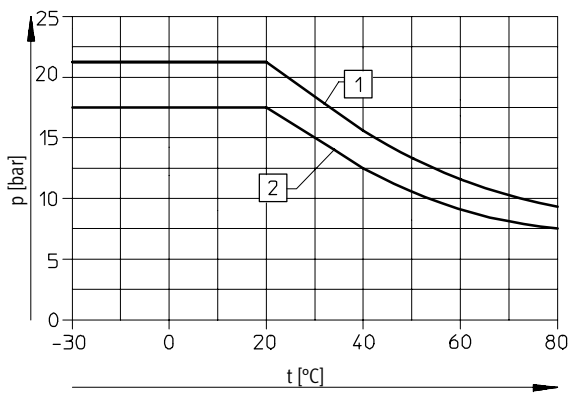
This hydrolysis resistant plastic tubing demonstrates high thermal and mechanical load capacities. Each length of tubing is delivered ready for installation with 2 rotatable fittings and suitable sealing rings. Kinks at the tubing ends are prevented with the anti-kinking springs.

Temperature range
-30 ... +80 °C

Material:
Polyamide
Free of copper, PTFE and silicone
→ Ordering data



Operating pressure p as a function of temperature t

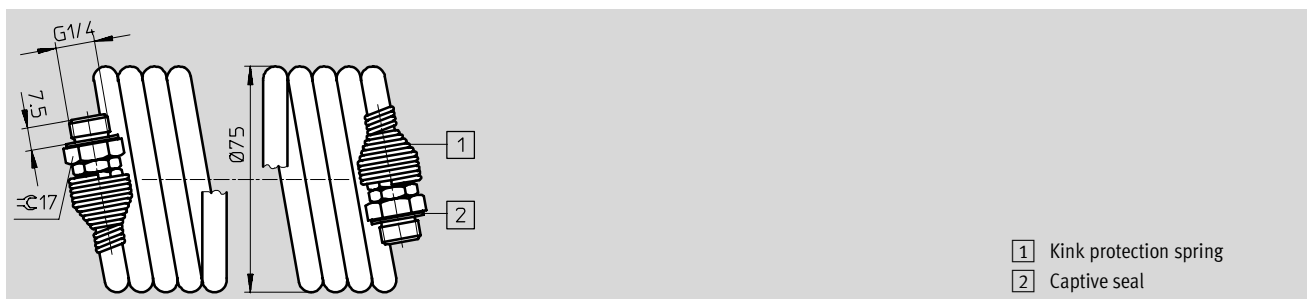


- 1 PPS-4
- 2 PPS-6

Dimensions and ordering data

Outside Ø [mm]	Inside Ø [mm]	Connection	Working length [m]	Block length [mm]	Colour	Part No.	Type	Part No.	Type
6.35	4.75	G1/4	7.5	340	Blue	19 798	PPS-4-7,5-1/4-BL	165 871	PPS-4-7,5-1/4-CT-BL ¹⁾
			15	670		19 799	PPS-4-15-1/4-BL	165 870	PPS-4-15-1/4-CT-BL ¹⁾
7.5	7.5		430	19 796		PPS-6-7,5-1/4-BL	165 873	PPS-6-7,5-1/4-CT-BL ¹⁾	
	15		800	19 797		PPS-6-15-1/4-BL	165 872	PPS-6-15-1/4-CT-BL ¹⁾	

1) Free of copper, PTFE and silicone



- 1 Kink protection spring
- 2 Captive seal

Core Range