



MICRODUCTS
OPTICAL CABLE PROTECTION
FIBRE-TO-THE-X



FAST – EFFICIENT – RELIABLE

ABOUT US

In 1990, Mr. Wolfgang Freiler founded the company named after him. From the beginning, the company focused on plastics engineering, including raw materials, finished parts and pipes.

In 1995 the Hungarian-based production company Polytech Industrie Kft was acquired. Today it is wholly owned by the Wolfgang Freiler GesmbH. Both companies have been continuously developed, in terms of production range as well as opening up new markets. Today the company is based on two strong pillars: pipe systems and industrial products.



The **pipe systems** sector encompasses a large number of products for civil engineering. In particular the company has achieved a leading market position in the segment of PE-HD cable protection pipes and is well recognized far beyond the borders by now. Well-known companies in Germany and abroad in the fields such as telecommunications, energy, railway, road, tunnel and forest road construction, appreciate the reliable quality of the Freiler/Polytech pipes as well as the extensive consulting and delivery service. Drinking and waste water pipes, heavy-duty sewage pipes and fittings complete the delivery program.

In the area of industrial products the focus lies on raw materials for the plastics processing industry on the one hand and the development of technical parts for the manufacturing industry on the other hand. Of course quality and a comprehensive service packages combined with punctual deliveries are the key success factors here as well.

The names Freiler and Polytech stand for excellent quality, customer-oriented service and flexibility. This flexibility also means being able to react quickly to market changes and technological advances. The fast and cost-effective expansion of FTTX networks for example is such a highly current topic. Our new microtube production facility, which went into operation in November 2017, enables us to provide our customers with a full range of products for broadband expansion. We are happy to respond to special customer requests and requirements in the further development of our products.





FTTX – MICRODUCTS

Microducts are pipes with very small diameters, by means of which cable networks can be ideally installed by pulling or blowing the optical cables into the ducts. Among the extremely beneficial properties of the microducts are their small diameters of 4 to 20 mm, their flexibility and very good tensile strength. All these properties allow the blow-in of cables on long distances. The use of bundled microducts allows the layout of optical cable networks that can be expanded easily, where the individual ducts can be branched off to the desired place if necessary. Due to their low construction costs, the installation of microduct networks is getting more preferable compared to traditional cable protection pipe networks.



MICRODUCT
data sheet



PRODUCT ASSORTMENT

The **SpeedPol** microducts manufactured by our company are made with different wall thicknesses adjusted to the various methods of use. The thin-walled microducts can be pulled or blown into empty or cable containing HDPE pipes. The thick-walled microducts can either be directly laid into the ground by ploughing them in, or cut into the asphalt pavement.

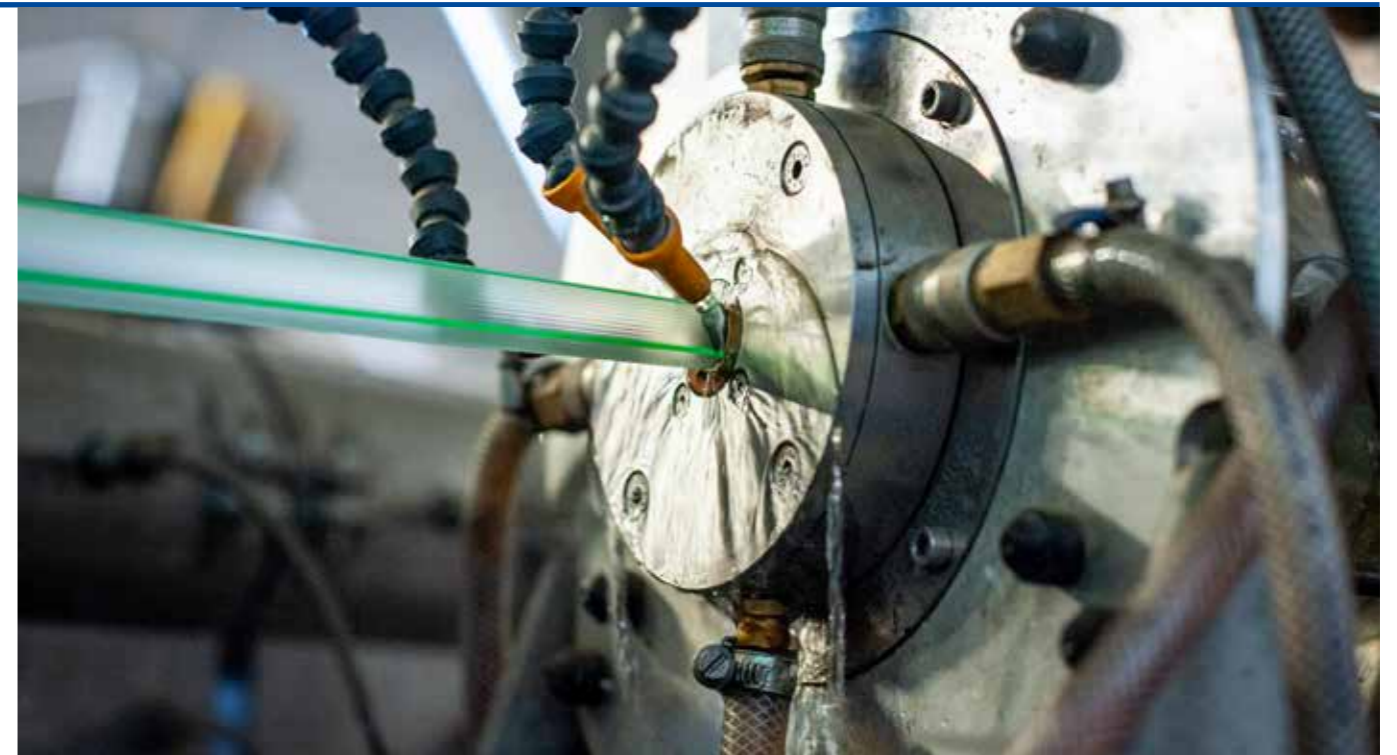
Property	Value	Tolerance	Standard
Material	HDPE polyethylene		
Density	> 0,95 g/cm ³		EN ISO 1183
MFR _{190°C/5kg} (flow index)	0,1-1,0 g/10 min		EN ISO 1133
Ovality / coiled	max 5%		
Blowing pressure	10 bar (thinwall) 16 bar (direct bury)		
Elongation at rupture	> 350 %		
UV resistance	1 year (assuming Central European climate)		
Bending radius	>20 x OD, at 20 °C; >35 x OD, at 10 °C; >50 x OD, at 0 °C		
Testing pressure	12 bar, 2 hours, 35 °C		
Tensile strength	14 N/mm ²		
Colour	transparent, with coextruded stripes		
Printing	MICRODUCT POLYTECH PEHD outer diameter x wall thickness production date, shift, machine, metre (repeated at intervals of 1m)		
Colour of printing	black		



SPEEDPOL – POLYTECH/FREILER MICRODUCT
For telecommunication use

outer diameter	wall thickness	m/drum	drums/truck	drums/pallet	m/drum	drums/truck	drums/pallet	direct bury	
								yes	no
mm	mm	narrow drum 120/40/40			wide drum 120/40/60				
7	0,75	6 000	88	4					•
7	1,50	6 000	88	4				•	
8	1,00	5 000	88	4					•
10	1,00	3 000	88	4					•
10	2,00	3 000	88	4				•	
12	1,00	2 000	88	4	3 500	66	3		•
12	1,10	2 000	88	4	3 500	66	3		•
12	2,00	2 000	88	4	3 500	66	3	•	
14	1,30	1 500	88	4	2 500	66	3		•
14	2,00	1 500	88	4	2 500	66	3	•	
16	1,50	1 200	88	4	1 800	66	3		•
16	2,00	1 200	88	4	1 800	66	3	•	
18	1,50	1 000	88	4	1 400	66	3		•
18	2,00	1 000	88	4	1 400	66	3	•	
20	2,00	750	88	4	1 200	66	3		•
20	2,50	750	88	4	1 200	66	3	•	

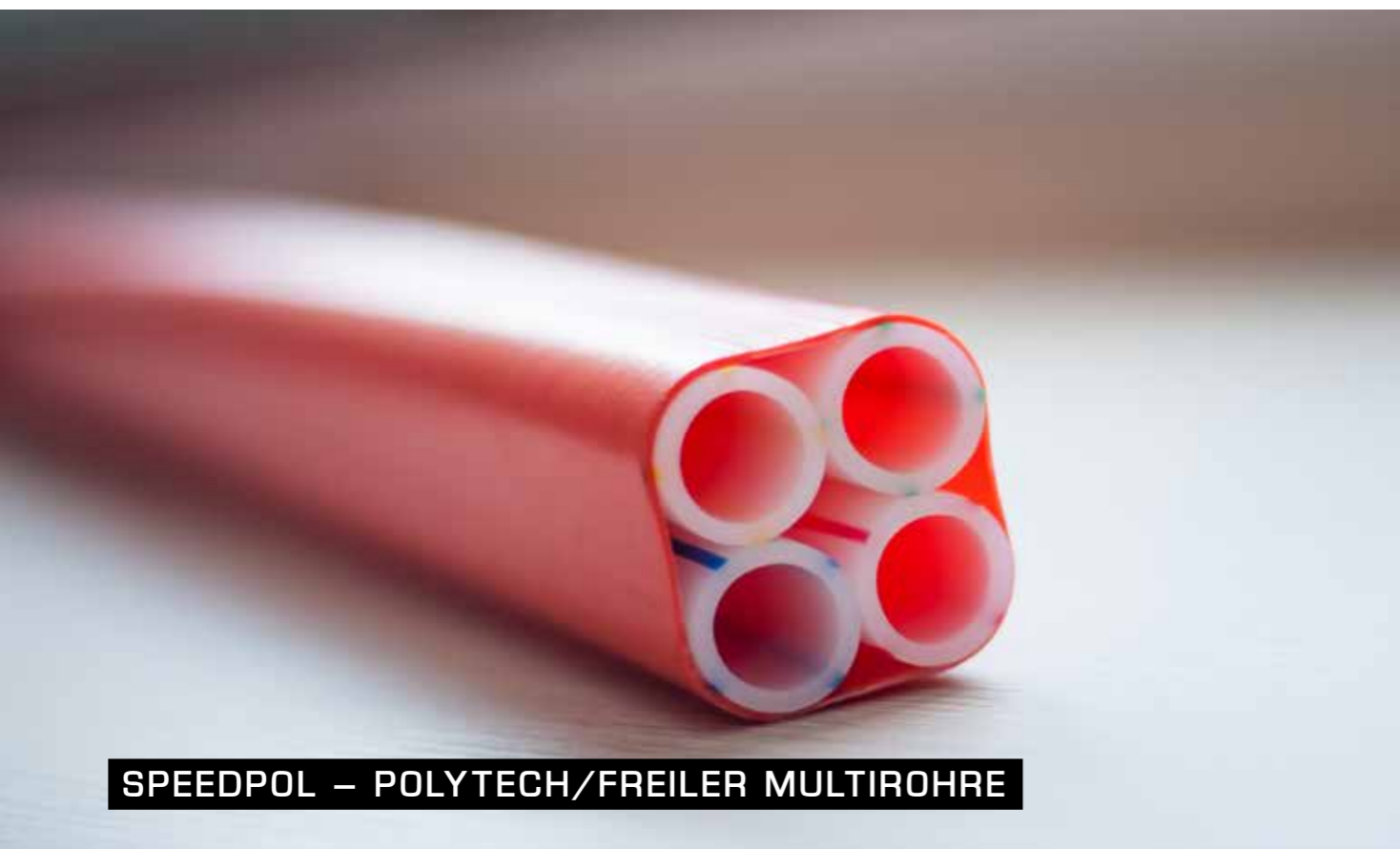
Outer diameter: 7 mm-20 mm
 Outside smooth, inside ribbed
Transparent, with 4 coloured stripes, colour code:
 According to Standard DIN/VDE 0888
Material quality: HDPE virgin material
UV resistance: 1 year (assuming Central European climate)



ONE-WAY WOODEN DRUMS

	outer Ø	core Ø	width	weight
narrow drum	120 cm	40 cm	40 cm	10 kg
wide drum	120 cm	40 cm	60 cm	10 kg





SPEEDPOL – POLYTECH/FREILER MULTIROHRE

Product type		on one-way drum		on returnable drum
		120/40/40	120/40/60	240/120/120
	2x7 mm	2 000	2 500	x
	2x10 mm	900	1 500	x
	2x12 mm	850	1 250	x
	2x14 mm	650	1 000	x
	3x12 mm	x	x	3 500
	3x14 mm	x	x	2 500
	3x16 mm	x	x	1 800
	3x20 mm	x	x	1 200
	4x12 mm	x	x	3 300
	4x14 mm	x	x	2 500
	4x16 mm	x	x	1 800
	4x20 mm	x	x	1 200
	6x14 mm	x	x	1 500
	6x16 mm	x	x	1 200



Product type		on one-way drum		on returnable drum
		120/40/40	120/40/60	240/120/120
	7x7 mm	x	x	5 000
	7x10 mm	x	x	3 250
	7x12 mm	x	x	2 200
	7x14 mm	x	x	1 500
	7x16 mm	x	x	1 200
	12x7 mm	x	x	3 800
	12x10 mm	x	x	1 700
	12x12 mm	x	x	1 050
	9x7 mm + 1x12 mm	x	x	3 500
	9x7 mm + 1x14 mm	x	x	2 500
	24x7 mm + 1x14 mm	x	x	1 500
	12x7 mm + 1x14 mm	x	x	2 500

Well thickness of bundling foil: 0,8 mm ± 0,2 mm
 Colour of bundling foil: orange
 Colour: transparent, with 4 coloured stripes
 Delivery: on multi-way or on one-way drums
 UV resistance: 1 year (assuming Central European climate)

FAST – EFFICIENT – RELIABLE







QUALITY CONTROL

The satisfaction of our customers is our most important objective, therefore a lot of emphasis is put on the quality of our products. The modern laboratory of Polytech Industrie Kft. enables all necessary tests to be carried out in accordance with the well-known DIN standards as well as ÖNORMEN and EN standards (e.g. DIN16876, DIN16874, EN12201, ÖNORM6513, etc.). Only the best quality products can pass our strict quality control. Polytech Industrie Kft has a certified quality management system according to EN ISO 9001: 2015. Furthermore, we ourselves or together with our partners have various certifications such as ENI and DVGW for gas and water with which we can supervise our customers.





Wolfgang Freiler Ges.m.b.H

-  A – 2700 Wiener Neustadt
-  +43 (0) 676 838 00 400
-  +43 (0) 2622 838 00 400
-  office@freiler.eu

www.freiler.eu