Issue I 3rd August 2020:

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Product Datasheet MHT 2309
Generic Specification DBmf Microducts and Bundles (7/3.5 & 7/4)

FibreFlow™

Product Description

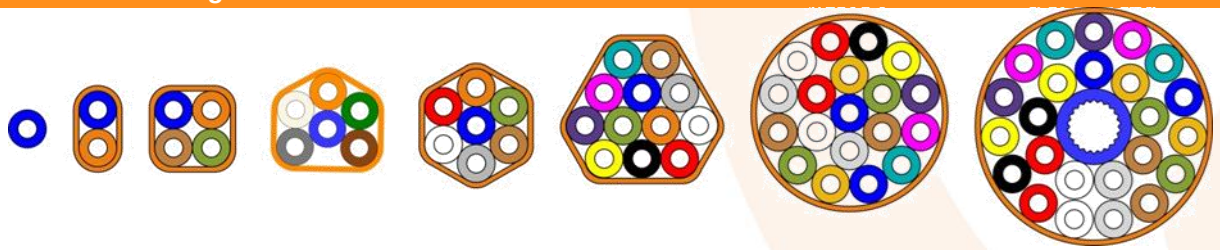
Assemblies of strong 7mm polyethylene (PE) microducts (m/d), each with low friction performance. These m/ds will accept all blown fibre products that can be installed into the more traditional 5/3.5 m/ds. There is a choice between 7/3.5 and 7/4.

Each 24-way has a strong 14/10 m/d in the centre. Each assembly (bundle) is surrounded by a thin strong PE sheath. These strong metal-free bundles are designed for direct burial in suitably prepared ground. Burial of the individual m/ds must be in ground free from hard, heavy or sharp material.

Product Benefits

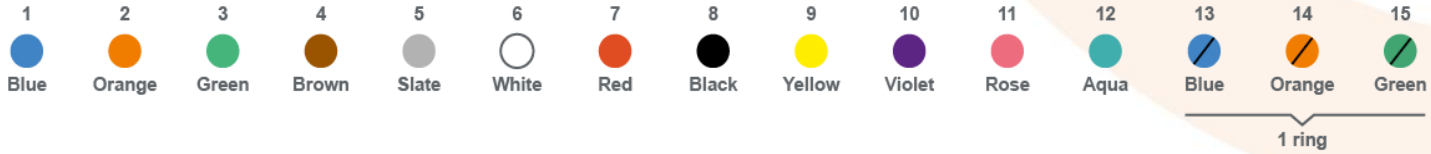
Microducts are tested according to IEC 60794-5	Blowing track: 2000 m Performance confirmed	Em-Liner for Low Friction and best blowing results	UV-Protection up to 2 years in EU	Pressure tight up to 20 bar

Application and Design



Inner surface:
Smooth or ribbed + Em-Liner

Colour identification of single ducts:
Translucent with stripes or uni coloured possible



Other colours upon request

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Generic Details: Single Microduct			
Material	Polyethylene HDPE		
Outer diameter	7.0 ± 0.1 mm	7.0 ± 0.1 mm	14.0 ± 0.2 mm
Inner diameter	3.5 ± 0.1 mm	4.0 ± 0.1 mm	10.0 ± 0.2 mm
Mass, nominal	28 g/m	25 g/m	72 g/m
Min. bending radius of primary duct*	100 mm	70 mm	210 mm
Max. pull tension, single duct	390 N (39 kg)	350 N (35 kg)	1020 N (102 kg)
Crush load (approx.) at 10 % compression	1800 N (180 kg)	1100 N (110 kg)	1000 N (100 kg)
Max. Blowing pressure	20 bar		

*This radius relates to the microduct capability only and does not indicate a good radius for blowing FU.

1. These m/ds are compatible with designated 7 mm push-fit connectors.
2. Max air pressure for blowing: 20 bar.
3. Storage of unprotected primary microducts: Indoors and well shielded from daylight.
4. 14/10 is the centre m/d in the 24-way

Generic Details: Microduct Bundle	
Material	Polyethylene HDPE
Sheath Thickness	1.1 mm
Number single ducts	2-24 (+14mm central duct)

Product-Specific Details				
Type	**Outer Diameter**	**Mass**	**Max. Pull Tension (Installation)***	**Min. Bend Radius**
7/3.5mm				
2-WAY DBMF	9,2 x 16,2 mm	97 g/m	0,78 kN / 78 kg	160 mm
4-WAY DBMF	19,1 mm	170 g/m	1.56 kN / 156 kg	330 mm
6-WAY DBMF	23,2 mm	234 g/m	2.35 kN / 235 kg	400 mm
7-WAY DBMF	23,2 mm	266 g/m	2.70 kN / 270 kg	400 mm
12-WAY DBMF	30,7 mm	429 g/m	4.70 kN / 470 kg	530 mm
19-WAY DBMF	36,2 mm	640 g/m	7.41 kN / 740 kg	620 mm
24-WAY DBMF	44,2 mm	860 g/m	9.4 kN / 940 kg	750 mm
7/4.0mm				
2-WAY DBMF	9,2 x 16,2 mm	91 g/m	0,7 kN / 70 kg	160 mm
4-WAY DBMF	19,1 mm	159 g/m	1.4 kN / 140 kg	330 mm
6-WAY DBMF	23,2 mm	217 g/m	2.1 kN / 210 kg	400 mm
7-WAY DBMF	23,2 mm	247 g/m	2.45 kN / 245 kg	400 mm
12-WAY DBMF	30,7 mm	395 g/m	4.2 kN / 420 kg	530 mm
19-WAY DBMF	36,2 mm	587 g/m	6.65 kN / 665 kg	620 mm
24-WAY DBMF	44,2 mm	793 g/m	8.4 kN / 840 kg	750 mm

*After applying pulling tensions, allow time for the pulled product to relax. See instruction manuals

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Operating Parameters	
Installation temperature	-20°C…+40°C
Transportation and storage temperature	-40°C…+60°C
Installation + Blowing ideal	+5°C…+20°C

Testing		
Tensile	IEC 60794-1-2-Method E1	Procedure to IEC 60794-5
Crush	IEC 60794-1-2-Method E3	Procedure to IEC 60794-5
Impact	IEC 60794-1-2-Method E4	Procedure to IEC 60794-5
Kink	IEC 60794-1-2-Method E10	Procedure to IEC 60794-5
Bend	IEC 60794-1-2-Method E11	Procedure to IEC 60794-5

Additional Information

- Emtelle FibreFlow Microducts are compatible with Emtelle 7 mm push-fit connectors, end caps and gas stops
- Emtelle's Microducts and bundles often exceed IEC60794-5 requirements. If you require precise or higher test results, please contact us for more information
- Bundles on drums are covered with UV-protection foil to ensure 1 year UV-protection plus
- Optionally, the bundles can be supplied with a 0.63mm locating wire (copper, coating 88Ω / km)
- Optionally, the bundles can be manufactured with a thick-walled bundle 2.2mm for higher tensile force and additional protection
- Production with PP sheath possible
- Stripes on the sheath possible
- Customer specific print available
- The sheath can be opened using a suitable sheath removal tool (see installation manual)