Micro ducts

1 General

1.1 The duct features an internal bonded low friction dry silicone liner, and can be with ribs to reduce frictional contact.
1.2 The ducts are supplied on drums.

2 Raw Materials

HDPE raw materials are used.
Density polyethylene > 0,940 g/cm^3
Mass flow rate of polyethylene 0,4 - 1,2 g/10min

3 Dimensions

						MASS
'SIZE'	MEAN OUTSIDE DIAM			WALL THICKNESS		nom
	min		max		max	g/m
7/3,5	6,8		7,2		1,85	26,1
7/5,5	6,8		7,2		0,95	13,8
8/3,8	7,8		8,2		2,2	35,4
8/4,4	7,8		8,2		1,9	31,6
10/5,5	9,8		10,2		2,1	47,2
10/8,0	9,8		10,2		1,1	24,2
12/8,0	11,8		12,2		2,1	56,7
12/10,0	11,8		12,2		1,1	29,5
14/10,0	13,8		14,2		2,1	67,9

3.1 The duct shall have dimensions (mm) as defined above.

3.2 The weight (mass) of the duct shall be nominally calculated for 1 m pipe:

$$(\boldsymbol{OD} - \boldsymbol{wt}) * \boldsymbol{wt} * \boldsymbol{\pi} * \boldsymbol{density}$$

where:
OD (outside diameter) and wt (wall thickness) is in mm, and density for cable duct material is 0,96 g/cm^3

4 Duct Performance

4.1 Physical properties

Test	Standard	Result
Compression	DS EN 61386	TW ≥ 250 N DB ≥ 750 N
Yield stress	EN ISO 6259	> 18 MPa
Longitudinal reversion	EN ISO 2505	< 3%
Coefficient of friction	Internal	≤ 0,1
Pressure test 12 bar/30 min/ 60°C	Internal	Pass
Ball chain test	Internal	Pass
Leak test	Internal	Pass

Leak test: Tested in a closed system at 8 bar (5 min)

Colour: Emtelle micro-ducts are manufactured in 12 colours:

- Blue
- Yellow
- White
- Green
- Black
- Red
- Orange
- Pink
- Grey
- Brown
- Violet
- Turquoise

Stripes: Possible if needed

Duct lengths: Emtelle manufactures micro-ducts in standard lengths depending on the duct dimensions. Micro-ducts are supplied on wooden drums as standard.

Micro-duct external diameter	Drum size 600 mm	Drum size 650 mm	Drum size 800 mm	Drum size 1000 mm
7 mm	600 m	1000 m 2000 m		
8 mm	600 m	1500 m	2000 m	
10 mm			1000 m (10/8)	3000 m (10/8) 2000 m (10/6)
12 mm			500 m (12/10)	2000 m
14 mm			500 m	1000/1200 m

Bend radius: The bend radius for micro-ducts varies according to the temperature. The bend radius for micro-ducts is 20 times the external diameter at a temperature of 20°C. At 0°C, the bend radius is increased by a factor of 2.5.

Exposure: The ducts shall be UV stabilised to withstand daylight exposure period of at least 12 months. However, for optimum performance, the duct is best stored for no longer than 6 months if outdoors.

Temperature: Storage and transport between -15°C and +50°C, installation between -15°C and +40°C

Marking: Manufactures name, dimensions, ID number, date - can be customized

Environmental considerations: Can be disposed to recycling