



Sheath: Orange color

Thickness of 1.2mm ± 0.2mm

**Ripcord:** Available upon customer request

**Tracing wire:** Available upon customer request

### **General Description**

The product are composed by 7 ways 7/3.5mm inner micro ducts, with low friction performance. The outer sheath is HDPE material with a thinner colored sheath making the product suitable for direct bury.

#### **Raw Materials**

	Characteristic	Test Method	Acceptance Criteria		
1	Bundles is manufactured with 100% virgin HDPE				
2	Melt Flow Index	ASTM D1238 190°C @ 2.16Kg Load	≤ 0.40 g/10min		
3	Density	ASTM D792	$0.940{\sim}0.958\mathrm{g/cm}3$		
4	Environmental stress crack resist (F50)	ISO 4599	Min. 96h		

#### **Inner Micro Duct**

#### **Dimension**

	Outer diameter (mm)		Wal thickness (mm)		Inner diameter (mm)	Pressure
	Nominal	Tolerance	Nominal	Tolerance	Min.	(bar)
7/3.5mm	7.0	±0.1	0.75	0.75	3.3	16

#### Marking

The inner micro duct marking include the following information and repeated every one meter:

- Product spec.
- Coil number
- Manufactured date
- Length marking (e.g. =1234m)
- Other markings are available upon customer requests.

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## Mechanical Performance – Inner micro duct 7/3.5mm

Items Standards		Test meth	Perfomance	
Inner diameter clearance	IEC 60794-5-10 Annex E	Pressure: Max. sphere size:	12 bar 85% of nom. ID	Pass through the micro duct
Tensile strength	IEC 60794-5-10 & 20	Rate of extension:	100mm/min	≥ 520N
Elongation	IEC 60794-5-10 & 20	Rate of extension:	100mm/min	≥ 500%
Crush	IEC 60794-5-10 & 20	Sample length: Load: Duration of Max. load: Recovery time:	250mm 2450N 1 min 1 hour	Under visual examination there is no damage to the micro duct, and inner diameter clearance test can be passed.
Impact	IEC 60794-5-10 & 20	Striking surface radius: Impact energy: Recovery time:	20mm 1.5 J 1 hour	Under visual examination there is no damage to the micro duct, and inner diameter clearance test can be passed.
Kink	IEC 60794-5-10 & 20	-		≤10x outer diameter
Min. Bend Radius	IEC 60794-5-10 & 20	Number of turns: Number of cycles: Mandrel diameter: diameter	5 1 20x outer	Under visual examination there is no damage to the micro duct, and inner diameter clearance test can be passed.
Friction	FCST	Mandrel diameter: Cable diameter: Load:  The sample duct is see wrap around the maweight shall be pulled and travel 200mm.	ndrel. A 5.0kg	<0.1

Page 2/5

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### **Tube Bundle**

#### **Configuration & Dimension**

	Outer diameter (mm)	Wal thickness (mm)	
	Nominal	Nominal	Tolerance
Tube bundle	23.4*21.6	1.2	± 0.2

#### **Mechanical Performance**

Items	Standards	Test method		Perfomance
Inner diameter clearance	250/ 5			Pass through the each inner micro duct
Tensile strength at yield (sheathing)	IEC 60794-5-10 & 20	Rate of extension: 100mm/min		≥ 21.0Mpa
Elongation (Sheathing)	IEC 60794-5-10 & 20	Rate of extension: 100mm	ı/min	≥ 500%
Crush	IEC 60794-5-10 & 20	Load: Duration of Max. load:	50mm 2000N 1 min 1 hour	Under visual examination there is no damage to the tube bundle, and inner diameter clearance test can be passed.
Impact	IEC 60794-5-10 & 20	Impact energy:	00mm 5.0 J I hour	Under visual examination there is no damage to the tube bundle, and inner diameter clearance test can be passed.
Min. Bend Radius	IEC 60794-5-10 & 20	Number of turns: Number of cycles: Mandrel diameter: 24x diameter	3 1 outer	Under visual examination there is no damage to the micro duct, and inner diameter clearance test can be passed.

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Page 3/5

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## **Packing**

FCST tube bundle are delivered on iron drum. The drums protected with black plastics foil and both end of the bundle are sealed with end cap to ensure that the inner micro duct will not be affected by water and dust.

#### **Remarks**

Completed packages of the HDPE micro duct on drum can be stored outdoor max. 6 months upon the date of production.

Storage temperature:  $-40^{\circ}\text{C}$   $\sim$   $+70^{\circ}\text{C}$  Installation temperature:  $-30^{\circ}\text{C}$   $\sim$   $+50^{\circ}\text{C}$  Operating temperature:  $-40^{\circ}\text{C}$   $\sim$   $+70^{\circ}\text{C}$ 

## **Packing Information**











## Fiber Cable Solution Technology Co.,Ltd.



# **Overseas Agency**



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Fiber Cable Solution Technology (FCST Co.,Ltd.) was established in 2003. We specialized in Fiber optic patch cord manufacturing in 2006. We transited to R&D fiber plastic products such as fiber optic closures and terminal boxes in 2009, and began to be involved in fiber blowing. In 2011, we set up our own micro duct factory in Shanghai. From 2014 till now, FCST has perfected total blowing solution and has become the leader of this field in China. We set up an engineer team specialized in R&D fiber cable aerial installation accessories from 2018 and we have finished more than 25 types of accessories, especially for FTTH drop cable aerial installation.

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