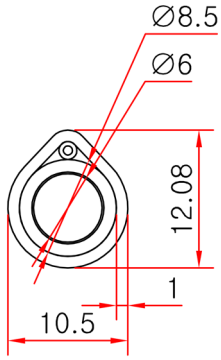
Pre-Installed Cable Microduct

Pre-installed 2core drop cable in 1way Microduct

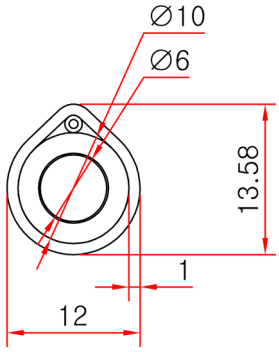
THICK-WALLED DUCT is designed for direct burial by having thicker inner tube.
It has advantage for easy and fast termination with thin outer sheath.
The thickness of each inner tube allows individual tubes to be used direct buried solution. This product is usually recommended to the site which requires fast and easy sheath cutting during fiber branch off from the FCP.

- Installation: Open cut, Micro trenching, Mini trenching, Plow , HDD, Direct Installed

Deploying the duct and then installing cable can be costly and time-consuming. There is a solution to eliminate the installation of cable at job site to reduce the possibility of damage from handling. “Pre-installed Cabled Microduct” is designed to save the cost & time.



8.5/6X1way #20



10/6X1way #20

Microduct Specification

10/6mm	Nom. OD (mm)	Weight (kg/km)	Max. Tensile (N)	Bend Radius (mm)	Crush (N)
8.5/6mm	10.5/12.0 8	64	700	130	2,000
10/6mm	12.0 /13.58	89	950	150	2,000

Features

Enhanced Silicone Liner for low friction
#20 Trace Wire
2 Core Drop cable Pre-installed


Drop Application

KNET Co.,LTD
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inquiry@e-knet.com

Material

- HDPE Inner tube and Outer sheath

Marking & Packing

- Meter or ft marking & Customized marking
- Various & customized put ups per reel

Color

- Outer sheath and inner tube colors are used according to industry standards, customer's colors, and stripes are optional.

Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua

Red	Green	Blue	Yellow	White	Grey	Brown	Violet	Aqua	Black	Orange	Pink

Temperature Performance

Storage and Transportation	-40°C to +60°C
Installation	-20°C to +50°C
Operation	-40°C to +60°C

Maximum Air Pressure

- 15bar

Mechanical Performance Test compliance

Test	Standard
Tensile Performance	IEC 60794-1-21 Method E1
Bend	IEC 60794-1-21 Method E11
Kink	IEC 60794-1-21 Method E1
Impact	IEC 60794-1-21 Method E3
Crush	IEC 60794-1-21 Method E3
Inner Clearance:	IEC 60794-5-20 Ann.E

- Certified to Telcordia GR 3155-CORE

Performance of The Single Mode Fiber after cabling (ITU-T G. 657 B3)

Parameter	Specification
Optical Characteristics	
Attenuation coefficient(After cable) @ 1310 nm @ 1550 nm @ 1625 nm	 ≤ 0.36 dB/km ≤ 0.27dB/km ≤ 0.30dB/km
Attenuation vs. Wavelength Max. α difference	≤ 0.03dB/km at 1285 ~ 1330 nm ≤ 0.02dB/km at 1525 ~ 1575 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm^2.km)
PMD Maximum Individual Fiber	≤ 0.1 ps/km$^{1/2}$
Cable cut-off wavelength	≤ 1260 nm
Mode field diameter @ 1310 nm	8.8 ± 0.4 um
Geometrical Characteristics	
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤ 0.7 %
Coating diameter	245 ± 5 um
Coating-Cladding concentricity error	≤ 12.0 um
Coating Non-circularity error	≤ 6.0 %
Core-Clad concentricity error	≤ 0.5 um
Curl (Radius)	≥4m
Mechanical Specification	
Proof test level	**≥100 kpsi**
Micro-bend induced attenuation 1 turn around a mandrel of 10mm diameter 1 turn around a mandrel of 10mm diameter 1 turn around a mandrel of 15mm diameter 1 turn around a mandrel of 15mm diameter 1 turn around a mandrel of 20mm diameter 1 turn around a mandrel of 20mm diameter	 ≤0.15 dB at 1550 nm ≤0.45 dB at 1625 nm ≤0.08 dB at 1550 nm ≤0.25 dB at 1625 nm ≤0.03 dB at 1550 nm ≤0.1 dB at 1625 nm
Coating strip force Average force	 1.5 N

Drop Cable Technical Details

Cable Construction

ITEMS	DESCRIPTION
Number of Fiber	2 (Natural color)
Tight Buffer	900um±10um (LSZH, Blue)
Strength Member	Aramid Yarns
Outer Jacket	TPU(Thermoplastic Polyurethane, Black)
Outer diameter	3.5±0.2mm

Drop Cable Mechanical & Environmental Performance Test

ITEMS	TEST METHOD AND ACCEPTANCE CRITERIA
Tensile Loading Test	# Test method: TIA/EIA-455-33A -. Mandrel diameter : 30D (D = cable diameter) -. tensile load : 900N for 30 minutes # Acceptance Criteria -. Attenuation increment: ≤0.20 dB
Crush resistance	# Test method: TIA/EIA-455-41A -. Applied load : 50kg/50mm -. Duration of loading : 5 minutes # Acceptance Criteria -. Attenuation increment : ≤0.20 dB
Impact Test	# Test method: TIA/EIA-455-25B -. Height of impact: 500mm -. Drop hammer mass: 0.5kg -. No. of impact : 10 point # Acceptance Criteria -. Attenuation Increment: ≤0.20 dB
Resistance to Repeated Bending	# Test method: TIA/EIA-455-104A -. Sheave diameter: 20D (D = cable diameter) -. No. of flexing cycles: 25 cycles -. Flexing speed: 30 cycles/minute # Acceptance Criteria -. Attenuation Increment: ≤0.20 dB
Temperature Cycling Test	# Test method: TIA/EIA-455-3A -. Temperature cycling schedule 25℃→-40℃→75℃→-40℃→75℃→25℃ -. Soak time at each temperature: 8 hours # Acceptance Criteria -.Attenuation Increment:≤0.30dB/km

Internationally Certified

KNET has met and maintains the rigorous standards required to become a Certified ISO 9001, ISO 14001 and TL9000 manufacturer. KNET Microduct Assemblies has been rigorously tested by Telcordia Technologies and found to be compliant to Telcordia GR-3155-CORE.