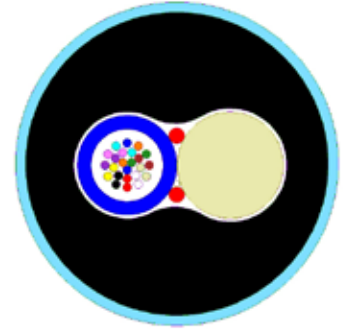


External Underground Single Loose Tube Optical Fiber Cable

molex

This loose tube dielectric optical cable is designed for external underground installations in ducts by pulling, jetting or floating techniques or by underground usage as per Australian standards. Mainly used for distribution and access network. Polyamide provides anti-termite protection.

Made up of a loose tube construction, the tube is made of a thermoplastic material, containing up to 24 optical fibers filled with a low viscosity, thixotropic, non-melting gel fully compatible with fiber coating and tube material, a glass fiber reinforced plastic material (GRP) strength member and water swellable elements (dry-core) providing longitudinal water tightness. The sheath is made up of a UV stabilized polyethylene in compliance with AS 1049. Two ripcords provided beneath the sheath for easy removal. The outer jacket is a UV stabilized polyamide (Nylon) in compliance with AS 1049 integrally bonded to PE sheath.



Features and Advantages

Loose tube construction surrounds the fibers in a protective gel, allowing for expansion and contraction of the cable without damage to the fibers

Outer nylon jacket provides protection from termites

Two ripcords under the outer sheath for easy removal of jacket

RoHS compliant

Specifications

MECHANICAL

Number of fibers: 6 to 24
Number of elements: 1
Tube/Filler diameter: 2.9mm
Cable nominal diameter: 9.4mm
Cable nominal weight: 77kg/km
Max. installation tension: 2.0kN
Max. crush resistance
 Short term: 2.0kN/100mm
 Long term: 1.0kN/100mm
Min. bending radius
 At full load: 250mm
 At no load: 125mm
Temperature range
 Installation: -0°C to +50°C
 Transport & Storage: -20°C to +70°C
 Operation: -10°C to +70 °C

ELECTRICAL/OPTICAL

General Characteristics
 Material: Silica/Germanium doped silica
 Index Profile: Step Index, Matched Cladding
Dimensions
 Cladding Diameter: 125 ± 0.7um
 Cladding Non-Circularity error: ≤1.0%
 Core / Cladding concentricity error: ≤0.5um
Primary Coating
 Material: UV Cured acrylic resin
 External Diameter (uncolored fiber): 245 ± 5um
 Coating Concentricity error: ≤12um
Transmission Characteristics
 Mode Field Diameter @ 1310 nm: 9.2 ± 0.4um
 Max. Attenuation (un-cabled fiber)
 @ 1310nm ≤0.35dB/km
 @ 1383nm ≤0.35dB/km
 @ 1550nm ≤0.21dB/km
 Max. Attenuation (Tight Buffer cabled)
 @ 1310nm ≤0.4dB/km
 @ 1383nm ≤0.4dB/km
 @ 1550nm ≤0.3dB/km
 @ 1625nm ≤0.3dB/km

Chromatic Dispersion

In the range 1285 to 1330nm ≤3.5ps/(nm.km)
@ 1550nm ≤18ps/(nm.km)
@ 1625nm ≤22ps/(nm.km)
Cabled cut-off wavelength: 1260nm
Zero dispersion wavelength: 1302 to 1322ps/(nm².km)
Zero Dispersion Slope: ≤0.092ps/(nm².km)
Polarization mode dispersion coefficient (PMD Single drum): ≤0.2ps/√km
PMD Link: ≤0.08ps/√km

Effective Group Index

@ 1310nm 1.4675
@ 1550nm 1.4681

Mechanical Characteristics of Primary Fiber Proof Test for 1 sec (or equivalent): 1%

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Ordering Information

Order No.	SAP No.	Description
AFOUY0060S2	Consult Molex	6 Core OS1/2 External Underground Single Loose Tube Optical Fiber Cable
AFOUY0120S2	Consult Molex	12 Core OS1/2 External Underground Single Loose Tube Optical Fiber Cable
AFOUY0240S2	Consult Molex	24 Core OS1/2 External Underground Single Loose Tube Optical Fiber Cable