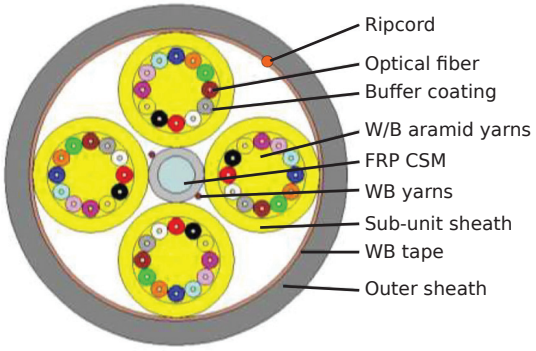
DATASHEET

Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable ›

The cable comprises of 4 or 6 sub-units stranded around a FRP central strength member. These sub-units comprise of 6 or 8 or 12 fibers.



Each fiber is semi tight coated to a 900 micron diameter, with a durable, protective material and the coating (LSZH buffer material). Each buffered fiber is uniquely color coded. Surrounding the group of buffered fibers are water blocking aramid yarns to provide the sufficient tensile strength to the cable, which effectively avoids damaging the cable during the installation, transportation, operation etc. A sheath is then applied over the sub-unit, tight fiber / aramid assembly and sub-units are colored black and ink jet printed with unique numbers (e.g. UNIT 1, UNIT 2, etc at 300mm intervals) to aid installation. The sheath has a flame retardant function, Low Smoke Zero Halogen (LSZH). Two water blocking yarns are applied over the central strength member (one longitudinally and one helically). The SZ stranded assembly has a water blocking tape which is then outer sheathed with Black LSZH jacket. A ripcord applied under outer sheath. All products are RoHS compliant.

FEATURES AND ADVANTAGES

- 900um tight buffered
- Water blocking aramid yarns provides sufficient strength to the cable to avoid damage during installation
- LSZH sheath
- RoHS compliant
- Ripcord under the outer sheath for easy removal of LSZH jacket
- UV stabilized

www.molexces.com/products/fiber/cables/

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SPECIFICATIONS

Reference information

Commercial Standards:
IEC 60794-2
AS/NZS 11801.1
AS/CA S008: 2020
FLAME RESISTANCE
AS/NZS IEC 60332.1
IEC 60332-3-24

Mechanical

Buffer Diameter: 0.9± 0.05mm
Sub-unit Diameter:
6, 12, 24 fiber = 4.8± 0.2mm
48, 96 fiber = 6.0± 0.2mm
Cable Diameter:
6 fiber = 4.8± 0.2mm
12 fiber = 6.2± 0.2mm
24 fiber = 15.0± 1.5mm
48 fiber = 18.2± 1.5mm
96 fiber = 25.6± 1.5mm
Approx. Cable Weight (± 10%):
6 fiber = 22kgs/km
12 fiber = 33kgs/km
24 fiber = 185kgs/km
48 fiber = 250kgs/km
96 fiber = 546kgs/km

6F, 12F, 24F, 48F, 96F
Cable Bend
Operation: ≥ 10 x Cable Diameter
Installation: ≥ 20 x Cable Diameter
Tensile Strength
Operation: 396N
Installation: 1320N
Crush Resistance: 1000N/10cm
Operational Temperature: -20°C to +70°C
Maximum Drum Lengths: 1000m

Electrical/Optical

OS1/2
Max attenuation
@1310nm: 0.4dB/km
@1383nm: 0.4dB/km
@1550nm: 0.3dB/km
@1625nm: 0.3dB/km
Refraction
Effective group index
@1310 and 1383nm: 1.467
@1550 and 1625nm: 1.468

Mode field diameter
@1310nm: 9.2 ± 0.4µm
@1550nm: 10.4 ± 0.5µm
Chromatic dispersion coefficient
In the interval between 1285nm and 1330nm: ≤ 3.5ps/km.nm
@1550nm: ≤18 ps/km.nm
@1625nm: ≤22 ps/km.nm
Zero dispersion wavelength λ0:
1302 to 1322nm
Zero dispersion slope @ λ0:
≤ 0.092ps/(nm2.km)

Cut-off wavelength λCC:≤1260*nm
Proof stress level: ≥0.7(1% strain)Gpa
Fiber curl radius: >4m
Strip force (peak): 1.2≤ Fpeakstrip≤ 8.9N
Dynamic fatigue resistance aged and unaged:
≥ 20Nd
Static fatigue resistance: ≥23NS

OM3
Attenuation
@850nm: ≤3.0dB/km
@1300nm: ≤1.0dB/km
Inhomogeneity of OTDR trace for any two 1000m fiber lengths: ≤0.2dB/km
Bandwidth
Overfilled launch modal bandwidth (OFL)
@850nm: ≥1500MHz.km
@1300nm: ≥500MHz.km
Effective model bandwidth (EMB)
@850nm: ≥2000MHz.km
Refraction
Effective group index
@850nm: 1.482
@1300nm: 1.477

OM3/OM4
Core diameter: 50±2.5µm
Cladding diameter: 125±1.0µm
Cladding non-circularity: ≤1.0%
Core non-circularity: ≤5%
Core cladding concentricity error:
≤1.5µm
Primary coating diameter: 245±10µm
Primary coating non-circularity: ≤5%
Primary coating-cladding concentricity error:
≤10µm
Secondary coating diameter: 900 ± 50µm
Proof stress level: ≥0.7(≈ 1 %)GPa
Typical average strip force: 1.7N
Strip force peak (F): 1.2≤ F≤8.9N
Numerical aperture: 0.200±0.015µm

Warranty:

Please refer to our website at www.molexces.com/About-Us/Our-Warranty.html for terms and conditions of any resulting warranty.

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molex

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ORDERING INFORMATION

Order No.	SAP No.	Description
AFOIR006OM3	Consult Molex	6 Core OM3 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR012OM3	Consult Molex	12 Core OM3 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR024OM3	Consult Molex	24 Core OM3 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR048OM3	Consult Molex	48 Core OM3 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR096OM3	Consult Molex	96 Core OM3 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR006OM4	Consult Molex	6 Core OM4 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR012OM4	Consult Molex	12 Core OM4 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR024OM4	Consult Molex	24 Core OM4 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR048OM4	Consult Molex	48 Core OM4 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR096OM4	Consult Molex	96 Core OM4 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR006OS1-AU	Consult Molex	6 Core OS1/2 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR012OS1-AU	Consult Molex	12 Core OS1/2 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR024OS1-AU	Consult Molex	24 Core OS1/2 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR048OS1-AU	Consult Molex	48 Core OS1/2 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable
AFOIR096OS1-AU	Consult Molex	96 Core OS1/2 Indoor/Outdoor Semi Tight Buffered Riser Fiber Cable

Standard colors: OM3=Aqua, OM4=Erica Violet and Singlemode=Yellow.
Other color options are subject to availability and MOQ, for more information, contact Customer Service.

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