



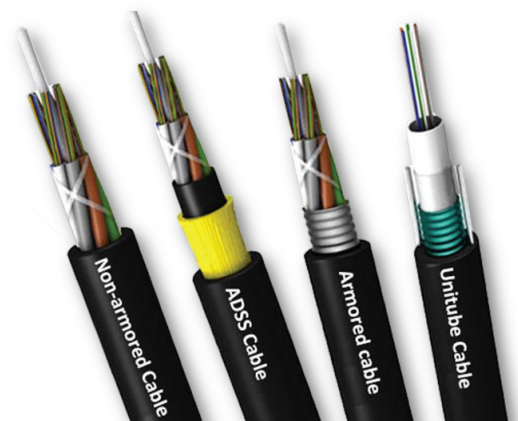
Setting the Standards

OXIN



Fiber Optic Cable

Catalogue



About Oxin Group

Oxin is a leading provider of fiber optic connectivity products used in data communications and Telecommunication networks.

The Company designs, develops, manufactures and sells fiber optic cabling, connectivity, management and systems solutions. It offers a broad range of products directly and through distributors, installers and OEM partners.

Oxin's growth has been founded on quality products, rapid response and excellent customer service. The Company is ISO9001:2000 approved and provides products conformant to international standards. Oxin is dedicated to value and continuous improvement of all its products and services. With headquarters in Paris, Oxin has manufacturing activities in the France, China and US operations. The Company has both volume and quick response manufacturing capabilities and is able to support the global logistics requirements of its customers. Oxin provides customised and customer branded products for OEM customers.

Oxin products are available directly from Oxin or from our worldwide distribution partners.



Setting the Standards

The Oxin fiber optic cable range includes simplex, duplex and flat ribbon patchcords, tight buffered, single loose tube and multi-loose tube distribution cables for internal and external applications as well as many variations of armoured, aerial, rodent resistant and water blocked cables.

The Oxin range has the solution for almost any application and can offer a cut to length service for specific fiber optic cables.

Please call the sales team for more information.



France Warehouse Facility



Cut to Length



Wide Range Available



Technical References

Cable Jacket Classification

Poly Vinyl Chloride (PVC) Cable

Cables with Poly Vinyl Chloride (PVC) jacket are the most commonly used and are often referred to as general purpose cables. These types of cables are intended for installations with no particular fire safety code requirements. In a fire, PVC-coated wires can form HCL fumes; the chlorine serves to scavenge free radicals and is the source of the material's fire retardance. While HCL fumes can also pose a health hazard in their own right, HCL breaks down on surfaces. Particularly in areas where the air is cool enough to breathe, and is not available for inhalation.

High Density Polyethylene (HDPE) Cable

HDPE is the high density version of PE plastic. It is harder, stronger and a little heavier than LDPE, but less ductile. The use of UV-stabiliser (carbon black) improves its weather resistance but turns it black. HDPE is also more opaque and it can withstand rather higher temperatures (120°C for short periods, 110°C continuously). HDPE has many advantages: chemical and corrosion-resistant, light-weight, low moisture absorption, non-staining, thermoforming performance, non-toxic and high tensile strength.

Fire Retardant Polyvinylchloride (FR-PVC) Cable

FR-PVC insulation has better fire retardant properties than normal PVC. It has significant advantages in terms of lower acid emissions and smoke generation. The amount of chlorine in the flame-retardant PVC (FRPVC) jacket cable is significantly higher (5%) than the conventional PVC jacket cable. FRPVC has good electrical insulation properties below 100°C.

Low Smoke ZeroHalogen (LSZH) Cable

Cables with LSZH jacket are intended for applications where both low smoke and low corrosive gases are needed. Used in shipboard applications and computer networking rooms where toxic or acidic smoke and fumes can injure people and/or equipment. Examples of Halogens include Fluorine, Chlorine, Bromine, and Iodine. These materials when burned produce acidic smoke that can harm people and computer equipment. These cables will self extinguish but cannot pass UL-910 or UL-1666 for a plenum or riser rating. However, LSZH cables have not been specified by NEC for use in installations in the US, these cables are used primarily in Europe.

General Purpose (CM, CMG, CMX) Cable

Communications cable used for general purpose. Intended for general use within buildings in accordance with the NEC Article 800.53(E)(1). These cables do not spread flame to the top of a tray in the Vertical-Tray Flame Test. As a general rule, CM and CMG cables are suitable for installation in cable trays and other non-plenum, non-riser areas. These cables will burn and partially self extinguish. Often these cables are used for workstation cables and patch cords. These cables comply with UL-1581 testing.

Riser (CMR) Cable

Cable that is suitable for use in a riser application. In commercial buildings, a riser is space used by telecommunications infrastructure, connecting from one floor to another. Defined for usage in vertical tray applications such as cable runs between floors through cable risers or in elevator shafts in accordance with Section 800.53(B) of NEC. These cables must pass the cable in a vertical burn test. These cables comply with UL-1666.

Plenum (CMR) Cable

Cables with plenum rated jackets are intended for installations where cables are routed through an air handling conduit, often called a plenum. Plenum cables must self extinguish and not reignite. They also produce less smoke than traditional PVC cables. The smoke and fumes are toxic.

This requirement is usually imposed by fire safety codes and is related to the stringent burn test that this type of cable must meet. These cables comply with NFPA-262 and UL-910.

Polyethylene (PE) Cable

PE is a semi-crystal thermoplastic material and one of the most commonly used plastics. It is generally ductile, flexible and has low strength. There are two basic families: LDPE (Low Density Polyethylene), and HDPE (High Density Polyethylene).

Technical References

Cable Armour

Metallic Armour

Metallic armour provides a tough protective covering for wires and cables. The type, thickness, and kind of metal used to make the armour depend on three factors:

1. The use of the conductors
2. the environment where the conductors are to be used
3. the amount of rough treatment that is expected

Steel Tape Armour

Steel tape covering is wrapped around the cable and then covered with a serving of jute. There are two types of steel tape armour: interlocking armour and flat-band armour.

Interlocked Armour

Interlocking Armour is applied by wrapping the tape around the cable so that each turn is overlapped by the next and is locked in place. Galvanized steel or aluminium are the typical materials used for interlocking armour. However, other metals are sometimes used for specialized applications. The metals are sometimes used for specialized applications. The interlocking construction protects the cable from damage during and after installation. The armour may be applied directly over the insulation for over an inner jacket. Materials and construction generally comply with the requirements of UL, CSA and/or ICEA.

Flat-Band Armour

Flat-Band armour consists of two layers of steel tape. The first layer is wrapped around the cable but is not overlapped. The second layer is then wrapped around the cable covering the area that was not covered by the first layer.

Continuously Corrugated and Welded (CCW)

CCW armour is made by forming an aluminium strip into a circle along its length and then welding it at the seam. This smooth tube is then rolled or crimped to form ridges to prevent kinking while bending. This type of sheath provides an impervious seal against moisture and other chemicals as well as physical protection.

Wire Armour

Wire armour is a layer of wound metal wire wrapped around the cable. Wire armour is usually made of galvanized steel and can be used with the sheath as a buried cable where moisture is a concern or without the sheath

Wire Braid Armour

Wire-braid armour also known as basketweave armour, is used when light and flexible protection is needed. Wire braid is constructed much like fibrous braid. The metal is woven directly over the cable as the outer covering. The metal used in this braid is galvanized steel, bronze, copper or aluminium. Wire-braid armour is mainly used for shipboards, because it provides the mechanical protection of an armoured cable, yet is much lighter in weight than other types of armoured coverings. Materials and construction generally comply with the requirements of IEEE Standard 45 and various military specifications.

Lead Sheath

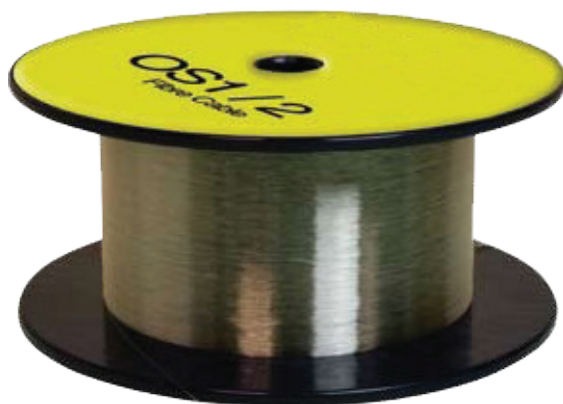
For underground installations in conduits, ducts and raceways, a lead sheath may be used to protect insulated cables from moisture. In locations where corrosive conditions may be encountered, a jacket over the lead is recommended. Commercially pure lead is used on some lead-covered cables, which conforms to the requirements of ASTM B29 and ICEA S-19-81. Lead alloy sheaths, containing added tin or antimony are used where a harder sheath is desired or where vibration may be encountered.

Wire Serve

Wire serve armour is most commonly found on submarine cable because it provides excellent physical protection from boat anchors, sharp rocks, sharks, etc. this type of armour normally consists of 1/8 to 1/4 inch diameter solid steel wires which are laid helically around the circumference of the cable. Tar or asphalt (bitumen) is placed over and around the steel wires to reduce the effects of corrosion.

OS1 ITU-T G.652B 9/125

Singlemode Optical Fiber



Description

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Features and Benefits

1. WP Single mode optical fiber with doped silica core and silica cladding. Dual layer UV cured acrylic resin primary coatings
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4. Fiber and sub-units are color coded for easy identification
5. Length markings in meters for easy determination of cable length
6. Small diameter and bend radius facilitate installation in tight spaces
7. Fibers grouped into sets of 12 for maximum density
8. Available in fiber counts up to 144 fibers
9. Available in colored jackets for indoor only installations
10. Available in tight buffered, loose tube and ribbon cable
11. Operational in the entire 1260nm to 1625nm wavelength range
12. Operational in the 1360nm to 1460nm wavelength extended band
13. Low chromatic dispersion in the 1310nm operating window
14. Low attenuation at the 1383nm water peak region

Applications

- Supports 1Gb/s up to an indicative 5km in data networks
- Supports high speed multi-channel video, data and voice services in metropolitan and access networks ATM, SONET and WDM

Certification and Compliance

| | |
|--------------------------|--|
| ISO/IEC 11801 OS-1 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-50 type B1.1 | Sectional specification for category B1 single mode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber Cable |
| ITU-T G.652B | Characteristics of a single-mode optical fiber and cable |
| ANSI/TIA/EIA-492CAAA | Detail Specification for Class IVa Dispersion-Unshifted Single-Mode Optical Fibers |

OS1 ITU-T G.652B 9/125

Singlemode Optical Fiber

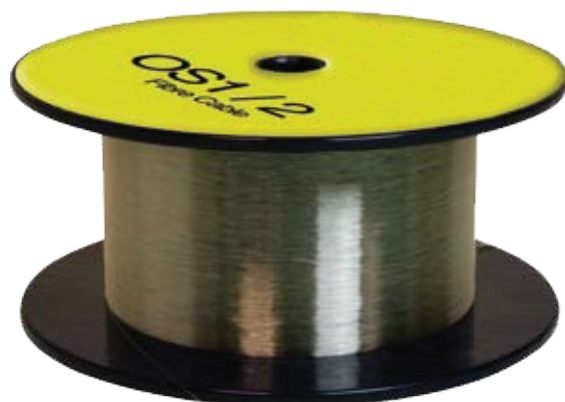
| | Parameter | | Value |
|---|--|------------------------|----------------------------------|
| Geometrical Characteristics | Mode field diameter | @ 1310 nm | 9.2 ± 0.4 μm |
| | | @ 1550 nm | 10.4 ± 0.8 μm |
| | Cladding diameter | | 125 ± 1.0 μm |
| | Cladding non circularity | | ≤ 0.7 % |
| | Coating non circularity | | ≤ 6.0 % |
| | Core/cladding concentricity error | | ≤ 0.5 μm |
| | Coating/cladding concentricity error | | ≤ 12 μm |
| | External diameter (uncoloured) | | 242 ± 8 μm |
| | Fiber curl radius | | ≥ 4 m |
| | Parameter | | Value |
| Transmission Characteristics | Maximum attenuation fiber | @ 1310 nm | ≤ 0.35 dB/km |
| | | @ 1550 nm | ≤ 0.21 dB/km |
| | | @ 1625 nm | ≤ 0.24 dB/km |
| | Maximum attenuation cabled | @ 1310 nm# | ≤ 0.38 dB/km |
| | | @ 1550 nm# | ≤ 0.25 dB/km |
| | | @ 1625 nm [□] | ≤ 0.28 dB/km |
| | Typical attenuation cabled | @ 1310 nm# | ≤ 0.34 dB/km |
| | | @ 1550 nm# | ≤ 0.19 dB/km |
| | | @ 1625 nm [□] | ≤ 0.25 dB/km |
| | Chromatic dispersion | @ 1310 nm | ≤ 3.00 ps/(nm·km) |
| | | @ 1550 nm | ≤ 18.00 ps/(nm·km) |
| | | @ 1625 nm | ≤ 22.00 ps/(nm·km) |
| | Cabled cut off wavelength λ _{ccf} | | ≤ 1260 nm |
| | Zero dispersion wavelength λ ₀ | | ≥ 1300 nm |
| | | | ≤ 1322 nm |
| | Zero dispersion slope S ₀ | | ≤ 0.090 ps/(nm ² ·km) |
| | Numerical aperture (NA) | | 0.14 ± 0.015 |
| Polarization mode dispersion (PMD) | | ≤ 0.2 ps/√km | |
| Group refractive index | @ 1310 nm | 1.4660-1.4677 | |
| | @ 1550 nm | 1.4670-1.4682 | |
| | @ 1625 nm | 1.4670-1.4682 | |
| Fiber irregularities point and whole length | | @ 1310 nm @ 1550 nm | ≤ 0.05 dB |
| | Parameter | | Value |
| Environmental Characteristics | Fiber temperature dependence -60°C to | | ≤ 0.1 dB/km |
| | Fiber temperature and humidity cycling -10°C to +85°C, 98% R.H. | | ≤ 0.1 dB/km |
| | Fiber water soak dependence 23°C for 30 | | ≤ 0.2 dB/km |
| | Parameter | | Value |
| Mechanical Characteristics | Proof test fiber strain for 1 second equivalent | | 1 % |
| | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | | ≤ 0.5 dB |
| | Typical mean coating strip force | | 1.0 to 3.0 N |

Standard OTDR testing wavelengths

□ Testing at 1625nm on request

OS2 ITU-T G.652D 9/125

Singlemode Optical Fiber



Description

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14. Low attenuation at the 1383nm water peak region

Applications

- Supports 1Gb/s up to an indicative 5km in data networks
- Supports high speed multi-channel video, data and voice services in metropolitan and access networks ATM, SONET and WDM

Certification and Compliance

| | |
|--------------------------|--|
| ISO/IEC 11801 OS-2 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-50 type B1.3 | Sectional specification for category B1 single mode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber Cable |
| ITU-T G.652D | Characteristics of Low Water Peak (LWP) Single Mode Optical Fiber |
| ANSI/TIA/EIA-492CAAB | Detail Specification for Class IVa Dispersion-Unshifted Single-Mode Optical Fibers with Low Water Peak |

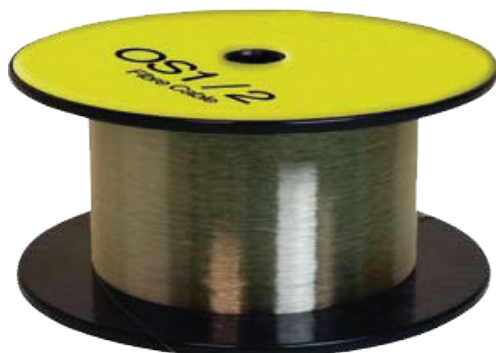
OS2 ITU-T G.652D 9/125

Singlemode Optical Fiber

| | Parameter | | Value |
|---|---|----------------------------------|--------------------|
| Geometrical Characteristics | Mode field diameter | @2 1310 nm | 9.2 ± 0.6 μm |
| | | @ 1550 nm | 10.1 ± 0.8 μm |
| | Cladding diameter | | 125 ± 0.9 μm |
| | Cladding non circularity | | ≤ 0.7 % |
| | Coating non circularity | | ≤ 6.0 % |
| | Core/cladding concentricity error | | ≤ 0.5 μm |
| | Coating/cladding concentricity error | | ≤ 12 μm |
| | External diameter (uncoloured) | | 242 ± 8 μm |
| | Fiber curl radius | | ≥ 4 m |
| | Parameter | | Value |
| Transmission Characteristics | Maximum attenuation fiber | @ 1310 nm | ≤ 0.35 dB/km |
| | | @ 1550 nm | ≤ 0.21 dB/km |
| | | @ 1625 nm | ≤ 0.24 dB/km |
| | Maximum attenuation cabled | @ 1310 nm# | ≤ 0.38 dB/km |
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| | | @ 1625 nm [□] | ≤ 0.25 dB/km |
| | Chromatic dispersion | @ 1310 nm | ≤ 3.00 ps/(nm·km) |
| | | @ 1550 nm | ≤ 18.00 ps/(nm·km) |
| | | @ 1625 nm | ≤ 22.00 ps/(nm·km) |
| | Cabled cut off wavelength λ _{ccf} | | ≤ 1260 nm |
| | Zero dispersion wavelength λ _o | | ≥ 1300 nm |
| | | | ≤ 1322 nm |
| Zero dispersion slope S _o | | ≤ 0.090 ps/(nm ² ·km) | |
| Numerical aperture (NA) | | 0.14 ± 0.015 | |
| Polarization mode dispersion (PMD) | | ≤ 0.2 ps/√km | |
| Group refractive index | @ 1310 nm | 1.4660-1.4677 | |
| | @ 1550 nm | 1.4670-1.4682 | |
| | @ 1625 nm | 1.4670-1.4682 | |
| Fiber irregularities point and whole length | @ 1310 nm | ≤ 0.05 dB | |
| | @ 1550 nm | | |
| | Parameter | | Value |
| Environmental Characteristics | Fiber temperature dependence -60°C to | | ≤ 0.1 dB/km |
| | Fiber temperature and humidity cycling -10°C to +85°C, 98% R.H. | | ≤ 0.1 dB/km |
| | Fiber water soak dependence 23°C for 30 | | ≤ 0.2 dB/km |
| | Parameter | | Value |
| Mechanical Characteristics | Proof test fiber strain for 1 second equivalent | | 1 % |
| | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | | ≤ 0.5 dB |
| | Typical mean coating strip force | | 1.0 to 3.0 N |

Standard OTDR testing wavelengths
[□] Testing at 1625nm on request

OS2 ITU-T G.655 NZDSF Singlemode Optical Fiber



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Applications

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Certification and Compliance

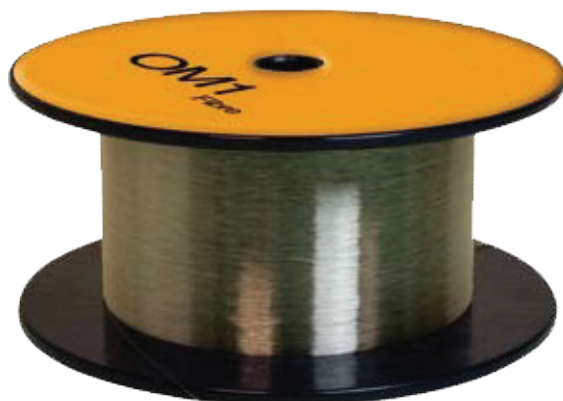
| | |
|---------------------------|--|
| ISO/IEC 11801 OS-2 | Information technology - Generic cabling for customer |
| IEC 60793-2-50 type B4 | Sectional specification for category B4 single mode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber |
| ITU-T G.655 | Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable |
| TIA-492E000 / TIA-492EA00 | Blank Detail Specification for Class IVd Nonzero-Dispersion Single-Mode Optical Fiber for the 1550 nm Window |

OS2 ITU-T G.655 NZDSF Singlemode Optical Fiber

| | Parameter | | Value |
|--------------------------------------|---|-----------|----------------------------------|
| Geometrical Characteristics | Mode field diameter | @ 1310 nm | 8.6 ± 0.6 μm |
| | | @ 1550 nm | 9.5 ± 0.8 μm |
| | Cladding diameter | | 125 ± 0.7 μm |
| | Cladding non circularity | | ≤ 1 % |
| | Coating diameter | | 245 ± 7 μm |
| | Coating non circularity | | ≤ 6.0 % |
| | Core/cladding concentricity error | | ≤ 0.6 μm |
| | Coating/cladding concentricity error | | ≤ 12.0 μm |
| | Fiber curl radius | | ≥ 4 m |
| | Parameter | | Value |
| Transmission Characteristics | Attenuation | @ 1550 nm | ≤ 0.22 dB/km |
| | | @ 1625 nm | ≤ 0.24 dB/km |
| | Attenuation vs. wavelength Max. α difference | | ≤ 0.02 dB/km |
| | Zero dispersion wavelength λ ₀ | | ≤ 1520 nm |
| | Dispersion slope @ 1550 nm | | ≤ 0.084 ps/(nm ² ·km) |
| | Typical dispersion slope @ 1550 nm | | 0.75 ps/(nm ² ·km) |
| | PMD | | |
| | Maximum Individual Fiber | | ≤ 0.2 ps/√km |
| | Link Design Value (M=20, Q=%0.01) | | ≤ 0.08 ps/√km |
| | Typical Value | | 0.04 ps/√km |
| | Cabled cut off wavelength λ _{ccf} | | ≤ 1450 nm |
| | Mode field diameter (MFD) @ 1550 nm | | 9.1 ~ 10.1 μm |
| | Effective group index of refraction (N _{eff}) | | 1.469 |
| | Point discontinuities @ 1550 nm | | ≤ 0.05 dB |
| | Parameter | | Value |
| Environmental Characteristics | Fiber temperature dependence -60°C to +85°C | | ≤ 0.1 dB/km |
| | Fiber temperature and humidity cycling -10°C to +85°C, 90% R.H. | | ≤ 0.1 dB/km |
| | Fiber water soak dependence 23°C for 30 days | | ≤ 0.2 dB/km |
| | Damp heat dependence +85°C, %85 R.H. for 30 days | | ≤ 0.05 dB/km |
| | Dry heat dependence +85°C | | ≤ 0.05 dB/km |
| | | Parameter | |
| Mechanical Characteristics | Proof test | | 1 % |
| | Bending dependence 100turns 60mm diameter @1625nm | | ≤ 0.05 dB |
| | Bending dependence 100turns 50mm diameter @1310nm & 1550nm | | ≤ 0.05 dB |
| | Bending dependence 1turn 32mm diameter @1550nm | | ≤ 0.5 dB |

OM1

62.5/125 Multimode Optical Fiber



Description

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Features and Benefits

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4. Fiber and sub-units are color coded for easy identification
5. Length markings in meters for easy determination of cable length
6. Small diameter and bend radius facilitate installation in tight spaces
7. Fibers grouped into sets of 12 for maximum density
8. Available in fiber counts up to 144 fibers
9. Available in colored jackets for indoor only installations
10. Available in tight buffered, loose tube and ribbon cable

Applications

- Gigabit Ethernet in high speed LAN networks over an indicative 275m link length at 850nm wavelength
- Legacy networks including Ethernet, Fast Ethernet and FDDI
- Premises cabling in data networks including backbone, riser and horizontal
- Supports video, data and voice services

Certification and Compliance

| | |
|-------------------------|--|
| ISO/IEC 11801 OM-1 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-10 type A1b | Product specifications - Sectional specification for category A1 multimode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber |
| ANSI/TIA/EIA-492AAAA | Detail Specification for 62.5 mm Core Diameter/125 mm Cladding Diameter Class Ia Graded-Index Multimode Optical Fibers |

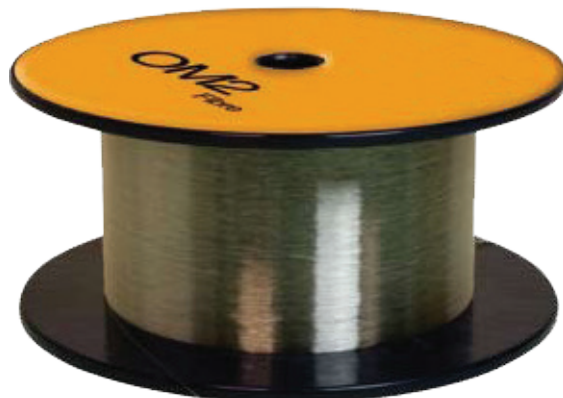
OM1

62.5/125 Multimode Optical Fiber

| | | Parameter | Value |
|---|--|--------------|---------------------------------|
| Geometrical Characteristics | Core diameter | | 62.5 ± 2.5 μm |
| | Core non circularity | | ≤ 6 % |
| | Cladding diameter | | 125 ± 2 μm |
| | Cladding non circularity | | ≤ 1.0 % |
| | Core/cladding concentricity error | | ≤ 1.5 μm |
| | Coating/cladding concentricity error | | ≤ 12 μm |
| | External diameter (uncoloured) | | 245 ± 10 μm |
| | | Parameter | Value |
| Transmission Characteristics | Maximum attenuation fiber | @ 850 nm | ≤ 3.0 dB/km |
| | | @ 1300 nm | ≤ 0.7 dB/km |
| | Maximum attenuation cabled | @ 850 nm | ≤ 3.5 dB/km |
| | | @ 1300 nm | ≤ 1.5 dB/km |
| | Typical attenuation cabled | @ 850 nm | ≤ 2.9 dB/km |
| | | @ 1300 nm | ≤ 1.2 dB/km |
| | Zero dispersion wavelength λ _o | | ≥ 1320 nm |
| | | | ≤ 1365 nm |
| | Zero dispersion slope S _o | | ≤ 0.11 ps/(nm ² ·km) |
| | Numerical aperture (NA) | | 0.275 ± 0.015 μm |
| | Modal bandwidth overfilled LED | @ 850 nm | ≥ 200 MHz·km |
| @ 1300 nm | | ≥ 500 MHz·km | |
| Group refractive index | @ 850 nm | 1.496 | |
| | @ 1300 nm | 1.491 | |
| Fiber irregularities point and whole length @1300 | | ≤ 0.2 dB | |
| | | Parameter | Value |
| Environmental Characteristics | Fiber temperature dependence -60°C to +85°C | | ≤ 0.1 dB/km |
| | Fiber temperature and humidity cycling -10°C to +85°C , 90% R.H. | | ≤ 0.1 dB/km |
| | Fiber water soak dependence 23°C for 30 days | | ≤ 0.1 dB/km |
| | | Parameter | Value |
| Mechanical Characteristics | Proof test fiber strain for 1 second equivalent | | 1 % |
| | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | | ≤ 0.5 dB |
| | Typical mean coating strip force | | 1.5 to 2.7 N |

OM2

50/125 Multimode Optical Fiber



Description

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7. Fibers grouped into sets of 12 for maximum density
8. Available in fiber counts up to 144 fibers
9. Available in colored jackets for indoor only installations
10. Available in tight buffered, loose tube and ribbon cable

Applications

- For use in 1 Gb/s high speed LAN networks over a 550m indicative link length at 850nm wavelength using a laser launch
- High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
- Premises cabling in data networks including backbone, riser and horizontal
- Supports video, data and voice services

Certification and Compliance

| | |
|---------------------------|--|
| ISO/IEC 11801 OM-2 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-10 type A1a.1 | Product specifications - Sectional specification for category A1 multimode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber Cable |
| ITU-T G.651 | Characteristics of multimode graded index Optical Fiber |
| ANSI/TIA/EIA-492AAAB | Detail Specification for 50 mm Core Diameter/125 mm Cladding Diameter Class Ia Graded-Index Multimode Optical Fibers |

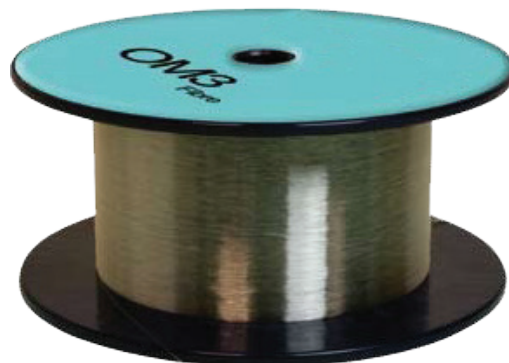
OM2

50/125 Multimode Optical Fiber

| | Parameter | Value | |
|---|--|--------------|---------------------------------|
| Geometrical Characteristics | Core diameter | 50 ± 2.5 μm | |
| | Core non circularity | ≤ 6 % | |
| | Cladding diameter | 125 ± 2 μm | |
| | Cladding non circularity | ≤ 1.0 % | |
| | Core/cladding concentricity error | ≤ 1.5 μm | |
| | Coating/cladding concentricity error | ≤ 12 μm | |
| | External diameter (uncoloured) | 245 ± 10 μm | |
| | Parameter | Value | |
| Transmission Characteristics | Maximum attenuation fiber | @ 850 nm | ≤ 2.5 dB/km |
| | | @ 1300 nm | ≤ 0.7 dB/km |
| | Maximum attenuation cabled | @ 850 nm | ≤ 3.5 dB/km |
| | | @ 1300 nm | ≤ 1.5 dB/km |
| | Typical attenuation cabled | @ 850 nm | ≤ 2.7 dB/km |
| | | @ 1300 nm | ≤ 0.9 dB/km |
| | Zero dispersion wavelength λ _o | | ≥ 1320 nm |
| | | | ≤ 1365 nm |
| | Zero dispersion slope S _o | | ≤ 0.11 ps/(nm ² ·km) |
| | Numerical aperture (NA) | | 0.275 ± 0.015 μm |
| | Modal bandwidth overfilled LED | @ 850 nm | ≥ 500 MHz·km |
| | | @ 1300 nm | ≥ 500 MHz·km |
| | Group refractive index | @ 850 nm | 1.482 |
| @ 1300 nm | | 1.477 | |
| Fiber irregularities point and whole length @1300 | | ≤ 0.2 dB | |
| | Parameter | Value | |
| Environmental Characteristics | Fiber temperature dependence -60°C to +85°C | ≤ 0.1 dB/km | |
| | Fiber temperature and humidity cycling -10°C to 85+°C , %90 R.H. | ≤ 0.2 dB/km | |
| | Fiber water soak dependence 23°C for 30 | ≤ 0.2 dB/km | |
| | Parameter | Value | |
| Mechanical Characteristics | Proof test fiber strain for 1 second equivalent | 1 % | |
| | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | ≤ 0.5 dB | |
| | Typical mean coating strip force | 1.7 to 2.7 N | |

OM3

50/125 Multimode Optical Fiber



Description

Today's advanced networks are diverse and almost always complex. The right way ahead is to future-proof these networks and to take precautions to protect them against anything that will create problems, damage or disruption. That means matching the right hardware with the right cabling to guarantee performance – and that means choosing fiber optic cable. Optical fiber cables offer many benefits: high bandwidth and transmission speed, the potential for network growth, extended reach, fault tolerance, greater data security and support for Gigabit and multi-Gigabit protocols and networked applications.

Features and Benefits

1. Graded index multimode optical fiber with doped silica core and silica cladding. Dual layer UV cured acrylic resin primary coatings
2. Dry water blocking technology within the tubes and under the cables' jacket
3. Full dielectric construction, no grounding required
4. Fiber and sub-units are color coded for easy identification
5. Length markings in meters for easy determination of cable length
6. Small diameter and bend radius facilitate installation in tight spaces
7. Fibers grouped into sets of 12 for maximum density
8. Available in fiber counts up to 144 fibers
9. Available in colored jackets for indoor only installations
10. Available in tight buffered, loose tube and ribbon cable

Applications

- For use in 10Gb/s / 1Gb/s high speed LAN networks over a 300m / 1000m indicative link length at 850nm wavelength using a laser launch
- High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
- Data centers
- Premises cabling in data networks including backbone, riser and horizontal
- Supports video, data and voice services

Certification and Compliance

| | |
|---------------------------|---|
| ISO/IEC 11801 OM-3 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-10 type A1a.2 | Product specifications - Sectional specification for category A1 multimode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber Cable |
| ITU-T G.651 | Characteristics of multimode graded index Optical Fiber |
| ANSI/TIA/EIA-492AAAC | Detail Specification for 850-nm Laser-Optimized, 50-um Core Diameter/125-um Cladding Diameter Class Ia Graded-Index |

OM3

50/125 Multimode Optical Fiber

| | | Parameter | Value |
|--------------------------------------|---|--|---------------------------------|
| Geometrical Characteristics | | Core diameter | 50 ± 2.5 μm |
| | | Core non circularity | ≤ 6 % |
| | | Cladding diameter | 125 ± 2 μm |
| | | Cladding non circularity | ≤ 1.0 % |
| | | Core/cladding concentricity error | ≤ 1.5 μm |
| | | Coating/cladding concentricity error | ≤ 12 μm |
| | | External diameter (uncoloured) | 245 ± 10 μm |
| | | Parameter | Value |
| Transmission Characteristics | Maximum attenuation fiber | @ 850 nm | ≤ 2.5 dB/km |
| | | @ 1300 nm | ≤ 0.7 dB/km |
| | Maximum attenuation cabled | @ 850 nm | ≤ 3.5 dB/km |
| | | @ 1300 nm | ≤ 1.5 dB/km |
| | Typical attenuation cabled | @ 850 nm | ≤ 2.7 dB/km |
| | | @ 1300 nm | ≤ 0.9 dB/km |
| | Zero dispersion wavelength λ_0 | | ≥ 1320 nm |
| | | | ≤ 1365 nm |
| | | Zero dispersion slope S_0 | ≤ 0.11 ps/(nm ² ·km) |
| | | Numerical aperture (NA) | 0.275 ± 0.015 μm |
| | Modal bandwidth overfilled LED | @ 850 nm | ≥ 1500 MHz·km |
| @ 1300 nm | | ≥ 500 MHz·km | |
| Group refractive index | @ 850 nm | 1.482 | |
| | @ 1300 nm | 1.477 | |
| | Fiber irregularities point and whole length @1300 | ≤ 0.2 dB | |
| | | Parameter | Value |
| Environmental Characteristics | | Fiber temperature dependence -60°C to +85°C | ≤ 0.1 dB/km |
| | | Fiber temperature and humidity cycling -10°C to +85°C , 90% R.H. | ≤ 0.2 dB/km |
| | | Fiber water soak dependence 23°C for 30 | ≤ 0.2 dB/km |
| | | Parameter | Value |
| Mechanical Characteristics | | Proof test fiber strain for 1 second equivalent | 1 % |
| | | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | ≤ 0.5 dB |
| | | Typical mean coating strip force | 1.7 to 2.7 N |

OM4

50/125 Multimode Optical Fiber



Description

Today's advanced networks are diverse and almost always complex. The right way ahead is to future-proof these networks and to take precautions to protect them against anything that will create problems, damage or disruption. That means matching the right hardware with the right cabling to guarantee performance – and that means choosing fiber optic cable. Optical fiber cables offer many benefits: high bandwidth and transmission speed, the potential for network growth, extended reach, fault tolerance, greater data security and support for Gigabit and multi-Gigabit protocols and networked applications.

Features and Benefits

1. Graded index multimode optical fiber with doped silica core and silica cladding. Dual layer UV cured acrylic resin primary coatings
2. Dry water blocking technology within the tubes and under the cables' jacket
3. Full dielectric construction, no grounding required
4. Fiber and sub-units are color coded for easy identification
5. Length markings in meters for easy determination of cable length
6. Small diameter and bend radius facilitate installation in tight spaces
7. Fibers grouped into sets of 12 for maximum density
8. Available in fiber counts up to 144 fibers
9. Available in colored jackets for indoor only installations
10. Available in tight buffered, loose tube and ribbon cable

Applications

- For use in 10Gb/s / 1Gb/s high speed LAN networks over a 300m / 1000m indicative link length at 850nm wavelength using a laser launch
- High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
- Data centers
- Premises cabling in data networks including backbone, riser and horizontal
- Supports video, data and voice services

Certification and Compliance

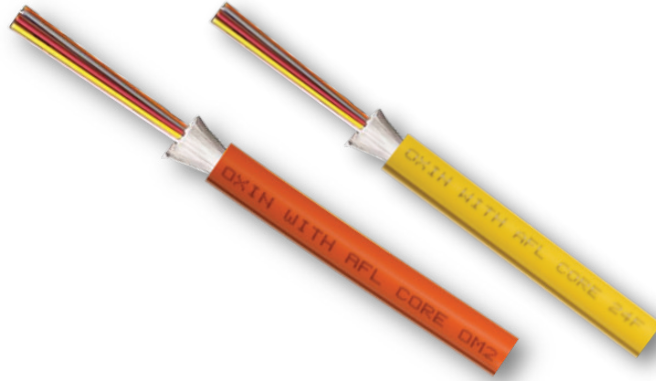
| | |
|---------------------------|---|
| ISO/IEC 11801 OM-4 | Information technology - Generic cabling for customer premises |
| IEC 60793-2-10 type A1a.3 | Product specifications - Sectional specification for category A1 multimode fibers |
| Telcordia GR-20-CORE | Generic Requirements for Optical Fiber and Optical Fiber Cable |
| ITU-T G.651 | Characteristics of multimode graded index Optical Fiber |
| ANSI/TIA/EIA-492AAAD | Detail Specification for 850-nm Laser-Optimized, 50-um Core Diameter/125-um Cladding Diameter Class Ia Graded-Index |

OM4

50/125 Multimode Optical Fiber

| | Parameter | Value | |
|---|--|----------------|---------------------------------|
| Geometrical Characteristics | Core diameter | 50 ± 2.5 μm | |
| | Core non circularity | ≤ 6 % | |
| | Cladding diameter | 124.9 ± 1.1 μm | |
| | Cladding non circularity | ≤ 1.0 % | |
| | Core/cladding concentricity error | ≤ 1.5 μm | |
| | Coating/cladding concentricity error | ≤ 12 μm | |
| | External diameter (uncoloured) | 244.5 ± 7.5 μm | |
| | Parameter | Value | |
| Transmission Characteristics | Maximum attenuation fiber | @ 850 nm | ≤ 2.3 dB/km |
| | | @ 1300 nm | ≤ 0.6 dB/km |
| | Maximum attenuation cabled | @ 850 nm | ≤ 3.5 dB/km |
| | | @ 1300 nm | ≤ 1.5 dB/km |
| | Typical attenuation cabled | @ 850 nm | ≤ 2.7 dB/km |
| | | @ 1300 nm | ≤ 0.9 dB/km |
| | Zero dispersion wavelength λ ₀ | | ≥ 1320 nm |
| | | | ≤ 1365 nm |
| | Zero dispersion slope S ₀ | | ≤ 0.11 ps/(nm ² ·km) |
| | Numerical aperture (NA) | | 0.275 ± 0.015 μm |
| | Modal bandwidth overfilled LED | @ 850 nm | ≥ 3500 MHz·km |
| | | @ 1300 nm | ≥ 500 MHz·km |
| Group refractive index | @ 850 nm | ≥ 4700 MHz·km | |
| | @ 1300 nm | 1.480 | |
| Fiber irregularities point and whole length @1300 | | ≤ 0.2 dB | |
| | Parameter | Value | |
| Environmental Characteristics | Fiber temperature dependence -60°C to +85°C | ≤ 0.1 dB/km | |
| | Fiber temperature and humidity cycling -10°C to +85°C , 90% R.H. | ≤ 0.1 dB/km | |
| | Fiber water soak dependence 23°C for 30 days | ≤ 0.2 dB/km | |
| | Parameter | Value | |
| Mechanical Characteristics | Proof test fiber strain for 1 second equivalent | 1 % | |
| | Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm | ≤ 0.5 dB | |
| | Typical mean coating strip force | 1.0 to 3.0 N | |

Tight Buffered Distribution Fiber Optic Cable



Description

Oxin tight buffered and breakout cables are manufactured using 900µm buffered fibers in a variety of constructions. Aramid or e-glass yarns are utilized to provide strength and to protect the fibers. The cables can be supplied with either Low Smoke Zero Halogen or PVC jackets, depending on the application.

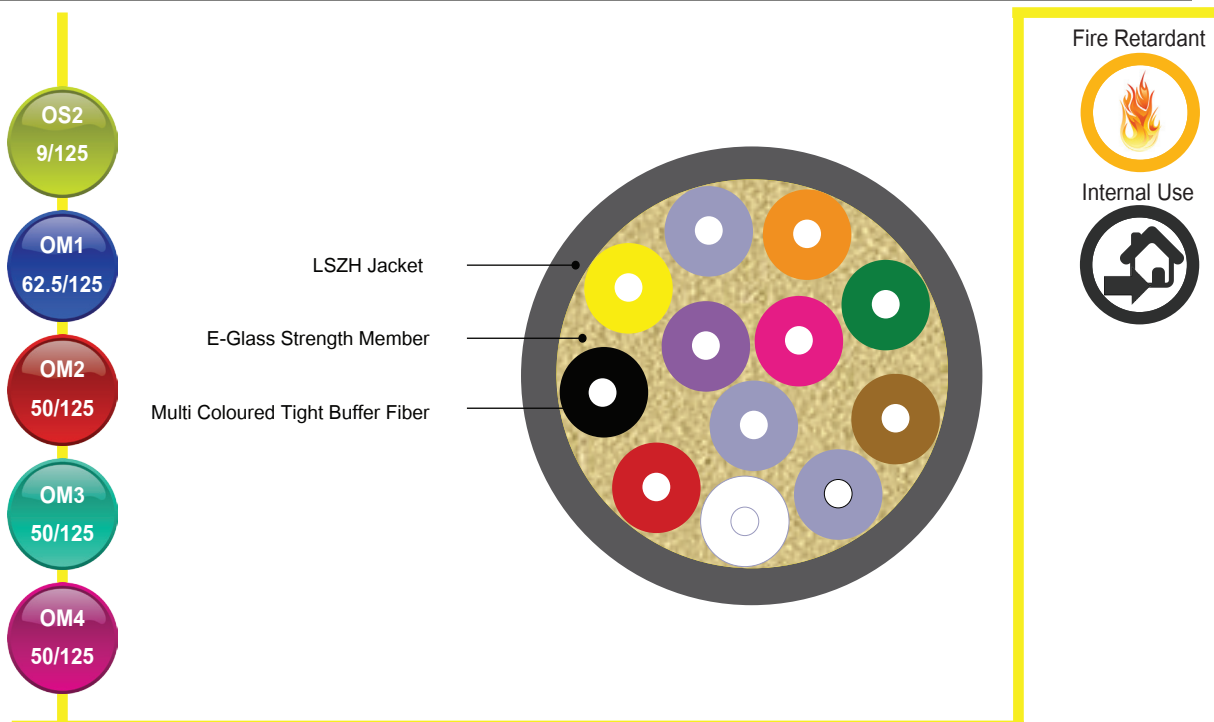
Oxin tight buffered and breakout cables have a variety of applications. These include horizontal distribution, backbone and riser applications, patch cords, rack to rack links in equipment rooms and short run external inter-building links.

Features and Benefits

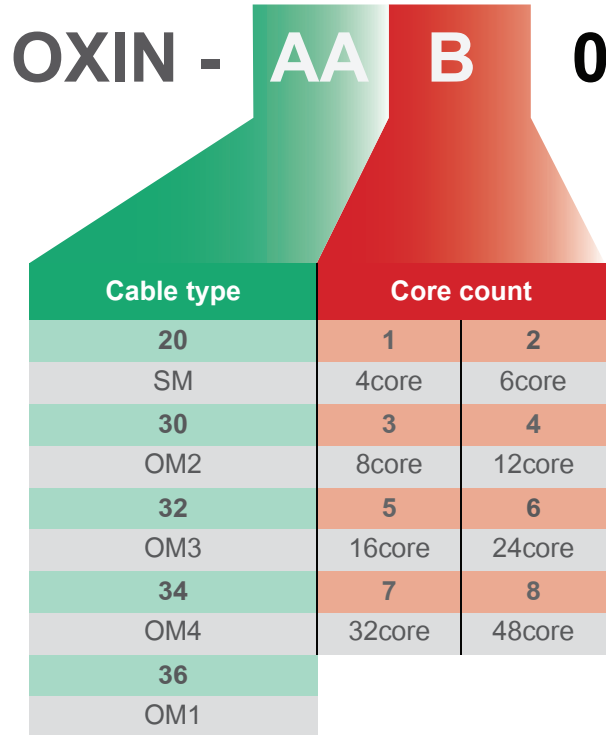
1. Choice of fiber type
2. Colour coded fibers
3. High strength E-Glass rodent resistant yarn strength members for ease of handling
4. LSZH jacket
5. Easy to strip

Applications

- Internal cable for installation in trunking, under floor or ceiling spaces
- Fiber backbones in riser and horizontal configurations



Tight Buffered Distribution Fiber Optic Cable



Oxin Fiber Optic Cable
Part Number Builder

Most Commonly Used Cables

| | Core | SM | OM2 | OM3 |
|---------------------------|---------|-----------|-----------|-----------|
| Tight Buffered | 12 core | OXIN-2040 | OXIN-3040 | OXIN-3240 |
| Distribution Cable | 24 core | OXIN-2060 | OXIN-3060 | OXIN-3260 |
| Part Number | 48 core | OXIN-2080 | OXIN-3080 | OXIN-3280 |

| | Parameter | unit | 4 core | 8 core | 12 core | 24 core |
|---------------------------------|----------------------------------|----------------|-----------|-----------|-----------|-----------|
| | Technical Characteristics | Outer Diameter | mm | 4.8 ± 0.3 | 5.8 ± 0.3 | 6.8 ± 0.3 |
| Weight | | kg/km | 26 | 34 | 37 | 55 |
| Max. Load (installation) | | N | 600 | 750 | 750 | 900 |
| Max. Load (installed) | | N | 300 | 375 | 375 | 450 |
| Min. Bend Radius (installation) | | mm | 96 | 116 | 130 | 150 |
| Min. Bend Radius (installed) | | mm | 48 | 58 | 65 | 75 |
| Fire Performance | | | LSZH | LSZH | LSZH | LSZH |
| Operating Temp. | | °C | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 |
| Storage Temp. | | °C | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 |
| Installation Temp. | | °C | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 |
| Crush Resistance | | N/(100mm) | 1000 | 1000 | 1000 | 1000 |



Setting the Standards

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