



CasaLight™ Plus CasaLight™ Xtreme

The G.657.B compliant optical fibres minimizing bend loss in the most demanding applications

- > Extremely low macrobending loss
- > Compatibility with existing networks
- > Neon™ Plus coating



FIBRE

CasaLight™ Plus CasaLight™ Xtreme



Prysmian Telecom Cables and Systems is a world leader in optical networking, offering a comprehensive range of vertically integrated products and services.

We create everything from in-house local area networks to international communication links spanning oceans and continents.

Benefits and Features

> **Excellent performance under extreme bend conditions**

CasaLight™ Plus and CasaLight™ Xtreme are designed specifically for deployment at very low levels of bend radius making them ideally suited to the installation of cables in an FTTH environment. The fibres can withstand bend conditions once thought only possible with copper cables. They are fully compliant with ITU-T G.657 class B and far exceed its recommended macrobend loss performance.

CasaLight™ Plus is the recommended solution where the bending radius is down to 7.5 mm whilst for tighter bends down to a radius of 5mm the use of CasaLight™ Xtreme is recommended.

> **Compatibility**

CasaLight™ Plus and CasaLight™ Xtreme are fully compatible with standard equipment, connectors and fibre already installed in accordance with ITU Recommendation G.652. The spliceability with legacy fibre is straightforward. Connectorization is as easy and affordable as it is with G.652 fibres.

> **Neon™ Plus coating**

CasaLight™ Plus and CasaLight™ Xtreme are available with Neon™ Plus, the latest generation of high performance coatings, based on the highly acclaimed Neon™ coating used by Prysmian worldwide for well over 10 years.

Mechanical specifications

CasaLight™ Plus and CasaLight™ Xtreme are proof tested at an elongation greater than or equal to 1%. This fibre is characterized in terms of Weibull plot and n value (Stress Corrosion Susceptibility Factor), with typical values above 19 (Dynamic Test).

CasaLight™ Plus and CasaLight™ Xtreme: closing the final gap to the end user

Characteristics

The mass deployment of optical technology in an FTTH environment creates major technical challenges. The cables and fibres will be subjected to extremes of handling and must be able to withstand tight bends under tension together with installation methods normally associated with internal copper cables such as the use of staple guns to fix to walls.

The CasaLight™ family of fibres provides the solution. Fully compatible with G.657.B, CasaLight™ Plus is ideal for use in riser cable

applications or in patchcords where minimum bend radii of 7.5mm are encountered. CasaLight™ Xtreme is the solution for the most extreme cases where bend radii down to 5mm are likely to be encountered.

Materials (glass and coating) used for CasaLight™ Plus and CasaLight™ Xtreme manufacturing are the same used for standard (ITU-T G.652) fibres, therefore guaranteeing an easy and efficient splicing process.

DIMENSIONAL SPECIFICATIONS

Glass geometry

| | Unit | |
|-----------------------------------|------|-------------|
| Cladding diameter | µm | 125.0 ± 0.7 |
| Cladding non circularity | % | ≤ 1.0 |
| Core/cladding concentricity error | µm | ≤ 0.5 |

Coating geometry

| | Unit | |
|--------------------------------------|---------------------|----------|
| Primary Coating Material | Acrylate Neon™ Plus | |
| Outer coating diameter | µm | 245 ± 10 |
| Coating/cladding concentricity error | µm | ≤ 12 |

OPTICAL SPECIFICATIONS

Attenuation coefficients

| | Unit | |
|-----------|-------|--------|
| @ 1310 nm | dB/km | ≤ 0.35 |
| @ 1550 nm | dB/km | ≤ 0.21 |
| @ 1625 nm | dB/km | ≤ 0.25 |

Macrobending attenuation

| | Unit | |
|-----------------------------------|------|-----------------|
| 10 turns, 15 mm radius at 1550 nm | dB | ≤ 0.03 (Plus) |
| 1 turn, 10 mm radius at 1625 nm | dB | ≤ 0.2 (Plus) |
| | dB | ≤ 0.07 (Xtreme) |
| 1 turn, 7.5 mm radius at 1625 nm | dB | ≤ 1.0 (Plus) |
| | dB | ≤ 0.2 (Xtreme) |
| 1 turn, 5 mm radius at 1550 nm | dB | ≤ 0.1 (Xtreme) |

Dispersion coefficients

| | Unit | |
|--|--------------------------|--------------|
| In the range 1285 – 1330 nm | ps/(nm.km) | ≤ 3.5 |
| @ 1550 nm | ps/(nm.km) | ≤ 18 |
| @ 1625 nm | ps/(nm.km) | ≤ 22 |
| Zero dispersion wavelength (λ_0) | nm | 1300 to 1324 |
| Slope S_0 at λ_0 | ps/(nm ² .km) | ≤ 0.092 |
| Polarisation mode dispersion (PMD) | ps/√km | ≤ 0.1 |
| PMD link design value* | ps/√km | ≤ 0.07 |

* Link design value definition complies with IEC 61282-3.

Mode Field Diameter

| | Unit | |
|----------|------|-----------|
| @1310 nm | µm | 8.6 ± 0.4 |

Cable cut-off wavelength (λ_{cc})

| | Unit | |
|--|------|--------|
| | nm | ≤ 1260 |

Any questions? Our team of experienced technical staff is ready to talk to you. See contact details.

About Us

With over 25 years experience of manufacturing optical fibres, Prysmian is able to offer an extensive product portfolio made to achieve the highest levels of quality and performance.

With a deep understanding of present and future market requirements, Prysmian's product range is targeted at the differing needs of the customer.

Prysmian is in the unique position of having access to all three major manufacturing processes; MCVD (Modified Chemical Vapour Deposition), OVD (Outside Vapour Deposition) and VAD (Vapour Axial Deposition).

This enables Prysmian to obtain an optimised range of products for different applications.

Enquiries

The optical characteristics of CasaLight™ can be tailored to meet your precise specifications. Whatever your requirements, if you need more information or would like to place an order, please call Prysmian Telecom Cables and Systems on +39 02 6449 7568.