



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 PrimaLight™ 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.

PrimaLight™

200 μm G.652 compliant optical fibre for high fibre density optical cables

- > Highest cable fibre counts
- > Compatibility
- > Neon™ Plus coating



dega design group

PrimaLight™



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

> Highest cable fibre counts

By reducing to 200 microns the diameter of the fibre – the basic building block of any cable – a step-change in cable diameter is possible: for very high fibre count designs – commonly deployed in the access networks – overall diameter reductions exceeding 10% are easily achieved; alternatively smaller tubes can be employed to hold similar fibre counts to those used previously.

> Compatibility

PrimaLight™ is in full compliance with ITU-T Recommendation G.652 and has satisfied all IEC testing requirements for transmission, mechanical and environmental performance. This makes PrimaLight™ a fibre truly compatible both with other fibres and with optical systems employed globally. PrimaLight™ is optically equivalent to Prysmian highly appreciated single mode fibre SM Light™, this featuring the same excellent splicing performances.

> NeonPlus™ coating

PrimaLight™ is available with Neon™Plus, the latest generation of bulk colored coating, based on the highly acclaimed Neon™ coating used by Prysmian worldwide for well over 10 years. The excellent performances of Neon™Plus made possible to guarantee for PrimaLight™ practically the same mechanical and environmental performances of standard 250 µm single mode fibres.

PrimaLight™ is 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).

Mechanical specifications

PrimaLight™: a major breakthrough in optical fibre technology, exclusively by Prysmian

Characteristics

As telecom networks continue to develop and the extent of fibre in these networks goes deeper towards the end user, the level of congestion in underground cable ducts, particularly in highly populated urban environments, is becoming a critical issue.

Manufacturers have made great efforts to reduce cable diameters through the use of improved manufacturing techniques and enhanced performance materials within the cable construction.

This has helped the congestion problem considerably although the lower limits of cable diameter have now realistically been reached. PrimaLight™ is the effective and easy solution for further reduction of cable diameter.

PrimaLight™ is manufactured with OVD technology in the Prysmian state-of-the-art plant in Battipaglia (Italy) named FOS, and is compliant with ITU-T Recommendation G.652.

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	
Outer coating diameter	µm	200 ± 10
Coating/cladding concentricity error	µm	≤ 8

OPTICAL SPECIFICATIONS

Attenuation coefficients

	Unit	
@ 1310 nm	dB/km	≤ 0.35
@ 1550 nm	dB/km	≤ 0.21
@ 1625 nm	dB/km	≤ 0.24

Macrobending attenuation

	Unit	
100 turn, 50 mm diameter at 1550 nm	dB	≤ 0.05
100 turn, 60 mm diameter at 1625 nm	dB	≤ 0.1

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	1302 to 1322
Slope S ₀ at λ ₀	ps/(nm ² .km)	≤ 0.092
Polarization 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	9.2 ± 0.4
@ 1550 nm	µm	10.4 ± 0.5

Cable cut-off wavelength (λ_{cc})

	Unit	
	nm	≤ 1260

Note: Other fibre grades are available to match your need.

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