

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 WideLight™ 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.

WideLight™

**High-capacity fibre
for low-cost
metropolitan applications**

- > **Lower total system cost**
- > **Futureproof design**
- > **Ideal for metropolitan applications**



dega design group

WideLight™

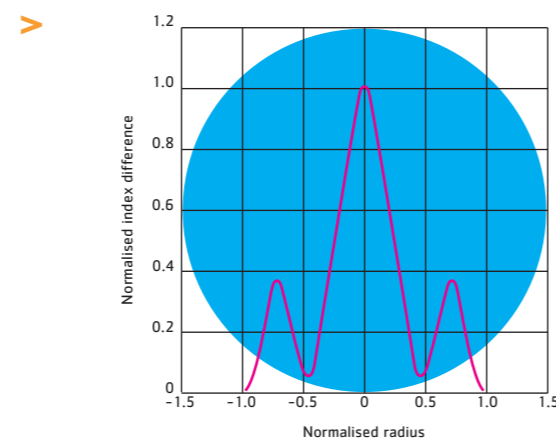
Prysmian Telecom Cables and Systems is a world leader in optical networking, offering a comprehensive range of vertically integrated products and services.

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

Benefits

- > **Lower total system cost**
Designed especially to reduce system costs to a minimum, WideLight™ fibre allows metropolitan cabling requirements to be met with minimal overall network expenditure.
- > **Futureproof design**
Because the ability to upgrade is essential, WideLight™ allows complete flexibility for system capacity enhancement. Whatever your future requirements may be, WideLight™ will deliver the capacity you need.
- > **Ideal for metropolitan applications**
With high capacity requirements and difficult environments, regional and metropolitan network applications present many challenges to the operator. WideLight™ helps to solve these problems, offering a flexible and adaptable high-capacity solution.

WideLight™ typical refractive index profile



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

Mechanical specifications



Offering reduced system costs and future-proof design, WideLight™ is the ideal cabling solution for today's metropolitan environments.

Characteristics

WideLight™ is an innovative fibre product particularly conceived for medium distance applications such as regional and metropolitan area optical networks. With its low, negative dispersion in the operating window, WideLight™ can benefit from the use of low cost lasers whilst avoiding expensive dispersion compensation, substantially reducing the overall operating cost.

Advanced optical engineering and up-to-date fibre technology are perfectly combined to give a non zero dispersion fibre which represents the ideal solution for low cost, medium distance, high capacity WDM transmission.

Refinements in glass and coating geometries together with very good attenuation and PMD properties deliver WideLight™ as a superior quality advanced fibre product.

WideLight™ is compliant with ITU-T Recommendation G. 655 and IEC 60793-2 type B4 fibres.

Key features

- In metropolitan and medium range applications, WideLight™ is optimised to minimise compensation costs without the onset of non-linear effects.
- Limited non-zero dispersion along the whole band of erbium-doped fibre amplification makes WideLight™ suitable for dense wavelength multiplexing over metropolitan distances.
- Optical properties make WideLight™ appropriate for the whole silica low attenuation band.
- Low negative dispersion allows metropolitan distances to be covered without the need for costly dispersion compensation.
- Fully compatible with other commercially available fibres, such as single mode and non zero dispersion shifted fibres.
- Low cost directly modulated lasers can reach further when operated with WideLight™ low negative dispersion.

Refinements to the glass geometries of WideLight™ enhance the splicing process:

DIMENSIONAL SPECIFICATIONS

Glass geometry	Unit	
Cladding diameter	µm	125.0 ± 1.0
Cladding non circularity error	%	≤ 1.0
Core/cladding concentricity error	µm	≤ 0.8
Coating geometry	Unit	
Outer coating diameter	µm	245 ± 5
Coating/cladding concentricity	µm	≤ 10

Fibres are characterised both in the Conventional and in the Extended Band for attenuation and chromatic dispersion performances.

OPTICAL SPECIFICATIONS

Attenuation coefficients	Unit	
@ 1550 nm	dB/km	≤ 0.23
@ 1625 nm	dB/km	≤ 0.25
Dispersion coefficients	Unit	
In the range 1530 – 1565 nm	ps/(nm.km)	-10 ± -4.5
In the range 1565 – 1625 nm	ps/(nm.km)	-6.5 ± -0.1
Polarisation mode dispersion (PMD)	ps/√km	≤ 0.1
Mode Field Diameter	Unit	
@ 1550 nm	µm	8.1 ± 0.5
Typical effective area (@ 1550 nm)	µm²	50
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.