FIBRE

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 FineLight™ 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.

dega design group

2008

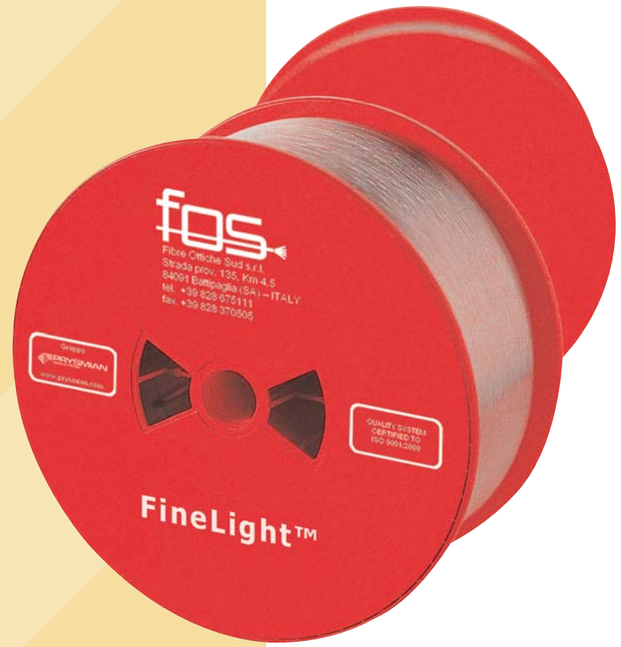
Prysmian Cables and Systems
Viale Sarca 222, 20126 Milano, Italy - tel. +39 02 6449 7568, fax +39 02 6613 2254 - telecom@prysmian.com

PRYSMIAN CABLES & SYSTEMS

FineLight™

A new generation of Fibre-To-The-Home New solutions for FTTX and LAN applications

- > **100 Mbit/s to unlimited bandwidth**
- > **Low cost VCSEL transmitters**
- > **Compatibility**



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www.prysmian.com

PRYSMIAN CABLES & SYSTEMS

FIBRE

FineLight™

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

> Bandwidth

FineLight ™ operates in the first, second and third window (850, 1310 and 1550 nm) offering broadband solutions for FTTX (Fibre to the X) and LAN (Local Area Networks) applications.

> Transmission

Using the existing technology of low cost single mode Vertical Cavity Surface Emitting Laser (VCSEL) devices in the first window (850 nm) FineLight™ can achieve bitrate and distances of typical Fast Ethernet and Gigabit Ethernet applications: 125 Mbit/s over 5 km and 1.25 Gbit/s over 550m.
Longer distances can be reached on demand. To achieve unlimited bandwidth in the same installed fibre just upgrade the transmitter to second and third windows (1310 and 1550 nm) - the fibre is already single-mode!

> Connectivity

Prysmian recommends the use of the most popular and reliable connector types such as SC, ST and FC connector for optimum system performance.

> Futureproof/Scalability

FineLight™ as well as operating at 850 nm, supports single mode applications at 1310 nm and 1550 nm, ensuring the biggest system scalability in current optical communication.

Mechanical specifications

FineLight™ 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).

FineLight™ uses the physics of light and glass in innovative ways to open up a new era at the last mile.

Characteristics

In addition to common specifications of standard single-mode fibre, FineLight™ family fibres are characterised for Differential Mode Delay (DMD).
This confirms the excellent first window performance for FineLight™.
FineLight™ 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 and IEC 60793-2-50 B1.1.

DIMENSIONAL SPECIFICATIONS

Glass geometry	Unit	
Cladding diameter	µm	125.0 ± 0.7
Cladding non circularity	%	≤ 1.0
Core/cladding concentricity error	µm	≤ 0.6

Coating geometry	Unit	
Outer coating diameter	µm	245 ± 10
Coating/cladding concentricity error	µm	≤ 12.0

OPTICAL SPECIFICATIONS

Attenuation coefficients	Unit	
@ 850 nm	dB/km	≤ 2.0
@ 1310 nm	dB/km	≤ 0.35
@ 1550 nm	dB/km	≤ 0.21

Macrobending attenuation	Unit	
100 turn, 60 mm diameter at 850 nm	dB	≤ 0.1
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
Zero dispersion wavelength (λ_0)	nm	1302 to 1322
Slope S_0 at λ_0	ps/(nm^2.km)	≤ 0.089

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

Bandwidth @ 850 nm	Unit	
FineLight™	MHz.km	≥ 600*

* Higher bandwidths available on demand.

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

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