

Introducing three new *FLEXRIBBON*[™] products

Introduction

Prysmian Group is proud to introduce three enhancements to its *FLEXRIBBON* line. The new 1728, 3456 and 6912 products – which feature *MASSLINK*[™] with *FLEXRIBBON* Technology – are designed to maximise fibre density and duct space utilisation, and will support major large-scale data centres worldwide.

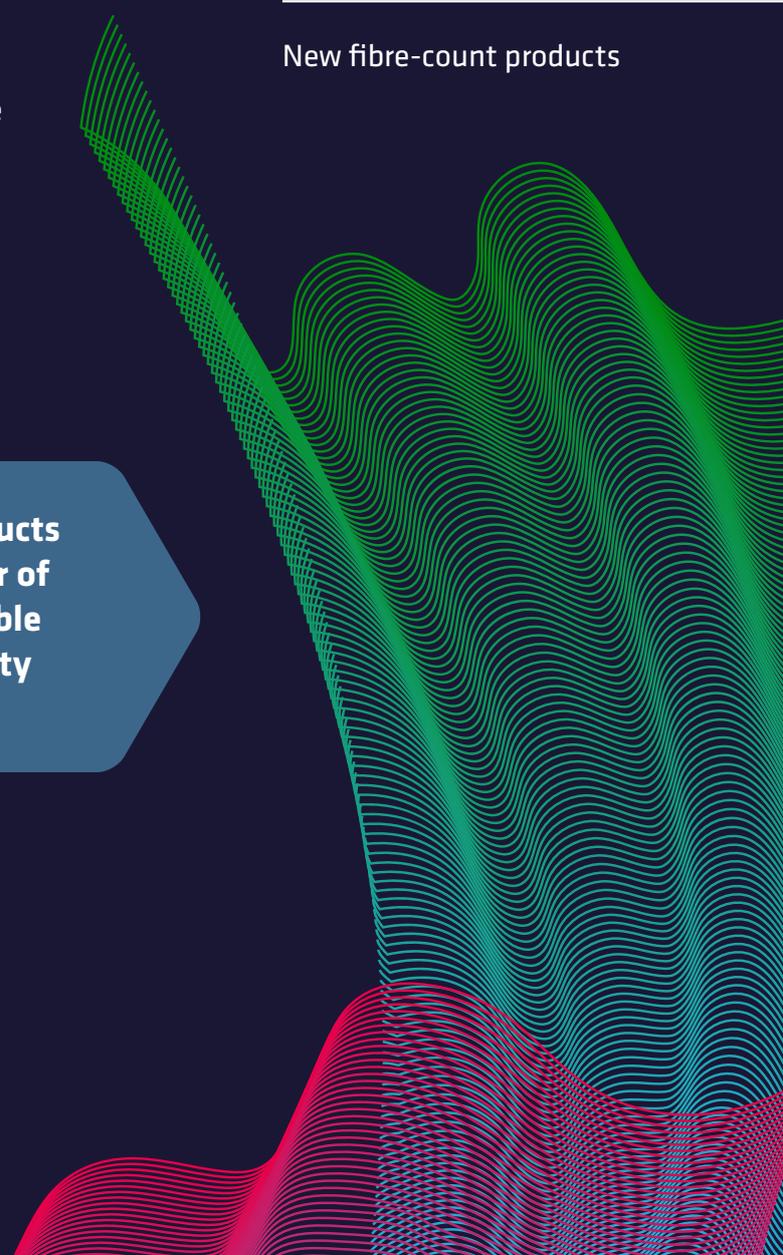
Our *MASSLINK* with *FLEXRIBBON* Technology products bundle the maximum number of fibres into the smallest possible cable by using extremely flexible fibre ribbons that can be rolled up for high-packing-densities, or laid flat for ribbon splicing.

1728
3456
6912

New fibre-count products



Our 1728, 3456 and 6912 products bundle the maximum number of fibres into the smallest possible cable to maximise fibre density and duct space utilisation.



Market overview

We developed our *FLEXRIBBON*[™] Technology product line to meet the needs of our customers in North America, who require high fibre-counts combined with high fibre-density, ultra-compact designs and efficient installation methods.

As the demand for more powerful, higher-density cables continues to increase, this latest offering will be a key asset for large companies to

navigate underground duct networks. We have continued to invest heavily in the R&D of *FLEXRIBBON* Technology, employing the most advanced equipment in anticipation of expanding into new markets.

Our new *FLEXRIBBON* products have been created to meet the increased demand for powerful, high-density cables.

Product technology

FLEXRIBBON is designed with flexible ribbon technology that can be bundled and tightly packed into a cable for maximum capacity, while still retaining a flat ribbon sequential fibre alignment. This combines the best attributes of loose fibre and flat ribbon in one.

FLEXRIBBON is also compatible with 200 μm to 250 μm fibre splicing, and has been tested with commercially available splicing equipment.

Procedures and training are available for splicing preparation.

The new *FLEXRIBBON* products feature an ultra-compact outside-plant cable design that contains bend-insensitive fibres. This ensures the highest possible fibre density and the smallest cable diameter, enabling the maximum number of fibres to be fitted into the applicable cable duct.

Features of the 1728 250 μm Fibre

Overview

MASSLINK™ with *FLEXRIBBON™* Technology provides an ultra-compact outside-plant cable design that contains **1728 bend-insensitive fibres** small enough to fit into a 31.75 mm/1.25-inch duct.

By using *FLEXRIBBON* Technology, ribbons are rolled up and packed together in small diameter **288-fibre subunits**. While *FLEXRIBBON* provides high-packing-density, these 250 μm fibre ribbons still provide the advantages of mass fusion splicing.

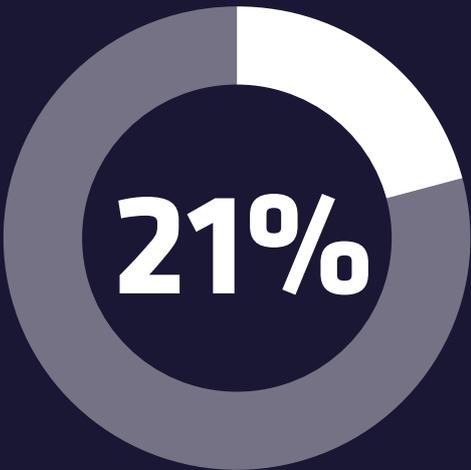
250 μm

12 fibre ribbons

Fits in a
31.75 mm/
1.25-inch
duct/conduit

288

fibres per
subunit



21%

With a **21% smaller diameter (38% volume reduction)** over traditional ribbon designs, the 1728 cable enables easier installation and maximises duct space utilisation.

Why *FLEXRIBBON*™ 1728?

- *FLEXRIBBON* is rolled up into compact 288-fibre subunits for easier routing and better protection for the overall fibre unit.
- Offering an ultra-compact design for greatest fibre density in a 24.9 mm/ 0.98-inch diameter cable, fitting in a 31.75 mm/1.25-inch duct/conduit.
- Significantly smaller diameter and lighter weight cables allow easier installation and use of smaller ducts.
- Using a central strength member improves flexibility and allows bending in any direction. This significantly improves installation performance over designs with strength members embedded in the jacket.
- 12 fibre ribbons are compatible with mass fusion heat strippers, cleavers, and splice machines.
- Uses standard 250 µm coated bend-insensitive fibre.
- Extremely flexible ribbons can be rolled up for high-packing-densities, or laid flat for ribbon splicing.



Performance

- Uses full dry water blocking technology in the tubes and cable core for easy closure preparation and termination.
- Tested in accordance with ICEA 640 and with relevant EIA/TIA-455 series FOTPs for fibre optic cables.

Nominal design parameters		
Fibre count		1,728
Tube positions		6
Number of ribbons/tube		24
Cable OD	(mm)	24.9
	(inches)	0.98
Weight	(kg/km)	379
	(lb/kft)	254
Maximum length	(m)	4,834
	(ft)	15,860
Duct size/% fill	1.25"/78%	
Fibre/subunit	6 units × 288f/unit	

Features of the 3456 200 μm Fibre

Overview

MASSLINK[™] with *FLEXRIBBON*[™] Technology provides an ultra-compact outside-plant cable design that contains **3456 bend-insensitive fibres** small enough to fit into a 38.1 mm / 1.5-inch duct.

By using *FLEXRIBBON* Technology, ribbons are rolled up and packed together in small diameter **216-fibre subunits**. While *FLEXRIBBON* provides high-packing-density, these 200 μm fibre ribbons still provide the advantages of mass fusion splicing.

200 μm

12 fibre ribbons

Fits in a
38.1 mm/
1.5-inch
duct/conduit
with a 74%
fill ratio

216

fibres per
subunit



We are pleased to roll out these new enhancements to our *FLEXRIBBON* line in anticipation of Prysmian expanding into new markets.

Philippe Vanhille, SVP Telecom Business at Prysmian Group

Why *FLEXRIBBON*™ 3456?

- *FLEXRIBBON* is rolled up into compact 216-fibre subunits for easier routing.
- Significantly smaller diameter and lighter weight cables allow easier installation and use of smaller ducts.
- A 3456 cable can be installed in a 38.1 mm/1.5-inch duct, which maximises duct space utilisation.
- Extremely flexible ribbons can be rolled up for high-packing-densities, or laid flat for ribbon splicing.
- 12 fibre ribbons are compatible with 200 µm mass fusion heat strippers, cleavers, and splice machines.
- Uses 200 µm coated bend-insensitive fibre.



Performance

- Uses full dry water blocking technology in the tubes and cable core for easy closure preparation and termination.
- Tested in accordance with ICEA 640 and with relevant EIA/TIA-455 series FOTPs for fibre optic cables.

Nominal design parameters

Fibre count		3,456
Tube positions		16
Number of ribbons/tube		18
Cable OD	(mm)	28.2
	(inches)	1.11
Weight	(kg/km)	478
	(lb/kft)	321
Maximum length	(m)	3,020
	(ft)	9,900
Duct size/% fill	1.50"/74%	
Fibre/subunit	16 units × 216f/unit	

Features of the 6912 200 μm Fibre

Overview

MASSLINK[™] with *FLEXRIBBON*[™] Technology provides an ultra-compact outside-plant cable design that contains 6,912 bend-insensitive fibres small enough to fit into a 50.8 mm/2-inch duct.

By using *FLEXRIBBON* Technology, ribbons are rolled up and packed together in small diameter **288-fibre subunits**. While *FLEXRIBBON* provides high packing-density, these 200 μm fibre ribbons still provide the advantages of mass fusion splicing.

200 μm

12 fibre ribbons

Fits in a
50.8 mm/
2-inch
duct/conduit

288

fibres per
subunit



Use of a central strength member improves flexibility and allows bending in any direction. Significantly improving installation performance over designs with diametrically opposing strength members in the jacket.

Why *FLEXRIBBON*™ 6912?

- *FLEXRIBBON* is rolled up into compact 288-fibre subunits for easier routing and better protection for the overall fibre unit.
- Offering an ultra-compact design for greatest fibre density in a 39 mm/1.54-inch diameter cable, fitting in a 50 mm/2-inch duct/conduit.
- Significantly smaller diameter and lighter weight cables allow easier installation and use of smaller ducts.
- Using a central strength member improves flexibility and allows bending in any direction. This significantly improves installation performance over designs with strength members embedded in the jacket.
- 12 fibre ribbons are compatible with mass fusion heat strippers, cleavers, and splice machines.
- Uses standard 200 µm coated bend-insensitive fibre.
- Extremely flexible ribbons can be rolled up for high-packing-densities, or laid flat for ribbon splicing.



Performance

- Uses full dry water blocking technology in the tubes and cable core for easy closure preparation and termination.
- Tested in accordance with ICEA 640 and with relevant EIA/TIA-455 series FOTPs for fibre optic cables.

Nominal design parameters

Fibre count		6,912
Tube positions		24
Number of ribbons/tube		24
Cable OD	(mm)	39
	(inches)	1.54
Weight	(kg/km)	940
	(lb/kft)	
Maximum length	(m)	3,000
	(ft)	9,843
Duct size/% fill	2.0"/60%	
Fibre/subunit	24 units × 288f/unit	

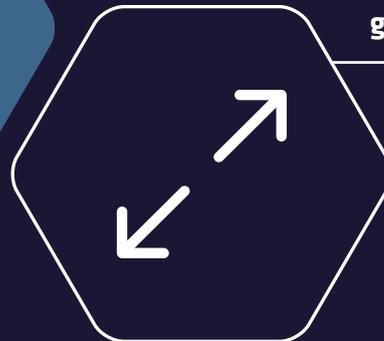
The benefits of *FLEXRIBBON*™ Technology

While our new *FLEXRIBBON* products provide high-packing-density, they also feature 200- and 250-micron fibre ribbons that still provide the advantages of mass fusion splicing.

Maximises your duct utilisation



Offers fast cable preparation with a completely gel-free design



FLEXRIBBON Technology offers lighter cables with a significantly smaller diameter. This ensures superior kink resistance and increased flexibility, which allows for easier installation and the use of smaller ducts.



Conclusions

Data centre software and hardware infrastructure need to evolve rapidly to address issues related to power efficiency, heat and cooling, real-estate, security, and data transmission.

Prysmian Group is committed to constantly investing in its optical fibre and cable capacities to respond to the needs of the market, and to support its customers in developing new, reliable and efficient broadband networks.



As the demand for more powerful, higher-density cables continues to increase, this latest offering will be a key asset for large companies to navigate underground duct networks.

Philippe Vanhille, SVP Telecom Business at Prysmian Group



We have continued to invest heavily in the R&D of *FLEXRIBBON*™ Technology, employing the most advanced equipment, which has led to the development of these new *FLEXRIBBON* products, now being offered to our customers worldwide.

Toni Bosch, VP Telecom Solutions at Prysmian Group

