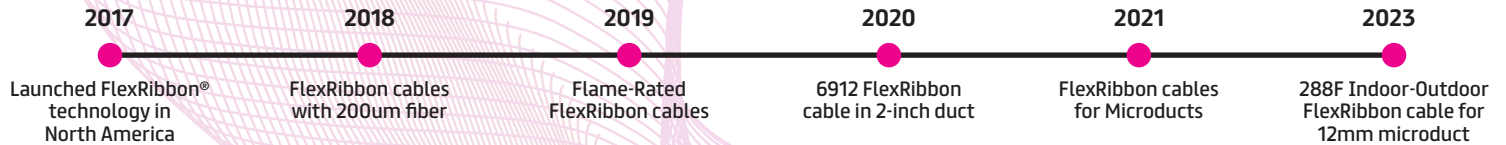# FlexRibbon® Technology

What is FlexRibbon® Technology?

- Fibers in conventional ribbons are locked together. This enables mass-fusion splicing but reduces flexibility and wastes space.
- FlexRibbon fibers are loosely connected with intermittent bonds in a way that allows mass-fusion splicing, while providing massive improvements in flexibility and space-efficiency.

Major Milestones:

2017	2018	2019	2020	2021	2023
Launched FlexRibbon® technology in North America	FlexRibbon cables with 200um fiber	Flame-Rated FlexRibbon cables	6912 FlexRibbon cable in 2-inch duct	FlexRibbon cables for Microducts	288F Indoor-Outdoor FlexRibbon cable for 12mm microduct

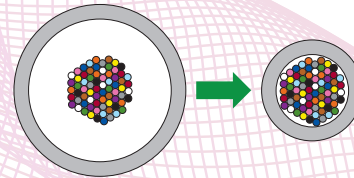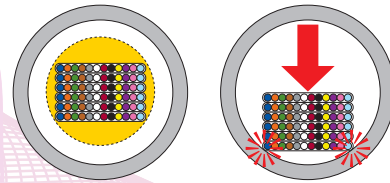## Benefits of FlexRibbon® Technology

Smaller Tubes, Less Stress

Conventional ribbons in a buffer tube are like a "square peg in a round hole". This leads to:
- Wasted space (yellow area)
- Stressed corner fibers (red highlights)

FlexRibbon fibers adapt to any space, which provides these improvements:
- No wasted space
- Pressure is spread evenly over fibers, which improves optical performance
- Buffer Tubes can be made much smaller without reducing performance

Smaller Cables

Prysmian's 1728-count FlexRibbon cable is smaller than an 864-count cable made with flat ribbons. *That's more than a 2X improvement in fiber density!* This provides many benefits, including:
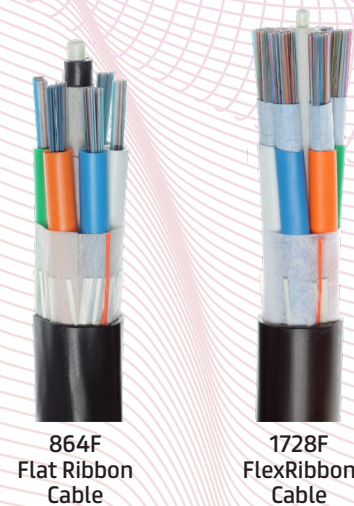- More cable per reel; less waste
- Lower shipping and storage costs
- Better duct and vault utilization
- Lower pole loading and make-ready costs
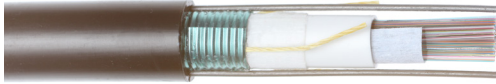
Easier to Install

FlexRibbon Cables and Ribbons are also more flexible. As a result:
- Placing, Figure-8'ing and coiling are faster and safer.
- Tight spaces, smaller ducts and smaller vaults are easier to work with.
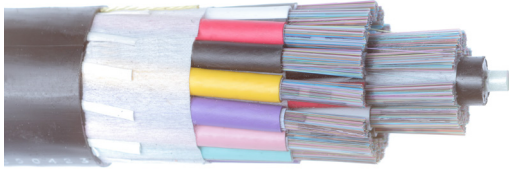- Splice tray prep is 80% faster.

Faster, easier installs save manpower and money.

864F Flat Ribbon Cable

1728F FlexRibbon Cable

Prysmian Group

FlexRibbon® Technology

288 Count Armored FlexRibbon Central Tube Cable

6912 Count FlexRibbon Cable

Prysmian Group *FlexRibbon*™ Product Offerings

Outside Plant Products

Fiber Count	Rating	Fiber Diameter	Cable OD mm (in)	Duct / Fill Ratio
96-144	OSP Dielectric	250µm	12.7 (0.50)	1" / 50%
	OSP Armored		12.6 (0.50)	1" / 50%
288	OSP Dielectric	250µm	15.3 (0.60)	1" / 60%
	OSP Armored		16.3 (0.54)	1" / 64%
432	OSP Dielectric	250µm	18.8 (0.74)	1" / 74%
	OSP Armored		19.8 (0.78)	1" / 78%
864	OSP Dielectric	250µm	21.9 (0.86)	1¼" / 69%
	OSP Armored		25.3 (1.00)	1¼" / 80%
	OSP Dielectric	200µm	17.0 (0.67)	1" / 67%
1728	OSP Dielectric	250µm	24.9 (0.98)	1¼" / 78%
	OSP Armored		30.1 (1.19)	1½" / 79%
	OSP Dielectric	200µm	21.3 (0.84)	1" / 84%
3456	OSP Dielectric	200µm	30.9 (1.22)	1½" / 81%
6912	OSP Dielectric	200µm	38.9 (1.53)	2" / 77%

Flex Drop Products

Fiber Count	Rating	Fiber Diameter	Cable OD mm (in)	Duct / Fill Ratio
12-24	Round Microcable	250µm	3.0 (0.12)	4mm / 75%
12-24	FlatDrop Microcable	250µm	4.3 x 8.0 (? x ?)	13mm / 80%

Riser Products

Fiber Count	Rating	Fiber Diameter	Cable OD mm (in)	Duct / Fill Ratio
288-432	OFNR/FT4	200µm	15.8 (0.62)	1" / 62%
864	OFNR/FT4	250µm	23.6 (0.93)	1¼" / 74%
	OFNR/FT4	200µm	18.5 (0.73)	1" / 73%
	OFNR/FT4/CPR		18.9 (0.74)	1" / 74%
1728	OFNR/FT4	250µm	26.6 (1.05)	1½" / 70%
	OFNR/FT4/CPR		26.7 (1.05)	1½" / 70%
	OFNR/FT4	200µm	26.0 (1.02)	1¼" / 82%
	OFNR/FT4/CPR		24.5 (0.96)	1¼" / 77%
3456	OFNR/FT4/CPR	200µm	34.0 (1.34)	2" / 67%
288f Microduct	OFNR/FT4	200µm	10.1 (0.40)	1¼" / 84%

Microduct Products

Fiber Count	Rating	Fiber Diameter	Cable OD mm (in)	Duct / Fill Ratio
144-192	Microduct Microcable	250µm	10.5 (0.41)	13mm / 81%
288	Microduct Microcable	200µm	9.4 (0.37)	13mm / 72%
432	Microduct Microcable	200µm	10.2 (0.40)	13mm / 78%
864	Microduct Microcable	200µm	11.9 (0.47)	15mm / 80%