Wrapping Tube Cable (WTC) with SpiderWeb Ribbon® (SWR®) – 200 µm Fiber/250 µm Pitch

The 200 µm fiber/250 µm pitch Wrapping Tube Cable (WTC), with SpiderWeb Ribbon® (SWR®), is an ultra-high density outside plant cable designed specifically for fiber-to-the-home (FTTH) or access markets. It is compliant with the latest issue of the outside plant cable standard, Telcordia GR-20. With an ultra-high density and a new ribbon technology called SpiderWeb Ribbon®, WTC provides the smallest cable diameter and lowest weight, high-fiber count ribbon cable in the industry. WTC with SWR® cables are available in fiber counts of 864, 1,728, 3,456 and 6,912.

SWR® is a bonded fiber ribbon design allowing for either a highly efficient ribbon splicing or an individual fiber breakout splicing process. This flexibility allows for a single cable design to cover a diverse set of applications from access networks to high-fiber count mass fusion splicing. With the ability to roll and conform, the SWR® provides for ultra-high density packaging in the WTC.
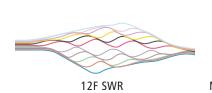
Features

- Collapsible ribbon reduces size of cable compared to other encapsulated or pliable ribbon technologies
- Design optimizes the fiber packing density making WTC-SWR cables the smallest ribbon cables without compromising robustness of the cable
- Small-diameter cable allows more optical fibers to be placed into crowded or limited-space pathways
- Water-blocked core
- Light weight for easy handling in the field compared to traditional cables
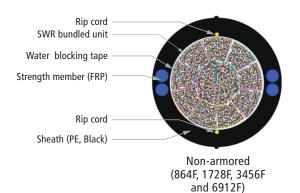- Completely Gel-free for reduced time to access fiber and prep for splicing

Applications

- Data Center Inter-building Connections
- Access Provider Metro Rings
- Service Provider FTTx
- Cable TV Subscriber Networks
- Metro Rail Track-side Network Links
- Suitable for Aerial Lashing, Pulled-in-duct, Air-Jetted-in-Duct
- Campus LAN

SWR Technology

12F SWR

Multiple 12F SWR Bundle

Rip cord
SWR bundled unit
Water blocking tape
Strength member (FRP)
Rip cord
Sheath (PE, Black)

Non-armored
(864F, 1728F, 3456F
and 6912F)

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Mechanical Data—Non-Armored

DESCRIPTION	FIBER COUNT	BINDER UNIT	NOMINAL DIAMETER inches (mm)	WEIGHT lbs/1,000 ft (kg/km)	SHORT TERM/INSTALLATION MAX TENSILE LOAD lbs (N)	SHORT TERM/INSTALLATION MIN BEND RADIUS inches (mm)	LONG TERM/STORAGE/STATIC MAX TENSILE LOAD lbs (N)	LONG TERM/STORAGE/STATIC MIN BEND RADIUS inches (mm)
LWSE-864-BE-C-72-12-00N1D-*	864	12 X 72F	0.63 (16.0)	124 (185)	607 (2700)	12.6 (320)	182 (810)	9.5 (241)
LWSE-1728-BE-C-144-12-00N1D-*	1728	12 X 144F	0.85 (21.5)	202 (300)	607 (2700)	16.9 (430)	182 (810)	12.7 (323)
LWSE-3456-BE-C-144-24-00N1D-*	3456	24 X 144F	1.04 (26.5)	292 (435)	607 (2700)	20.9 (530)	182 (810)	15.7 (399)
LWSE-6912-BE-C-288-24-00N1D-*	6912	24 X 288F	1.38 (35.0)	514 (765)	607 (2700)	27.6 (700)	182 (810)	20.7 (525)

* **NOTE:** To designate length markings in AFL No., replace asterisk * with (FT) for Feet or (M) for Meters.

Optical Fiber

FIBER COUNT	FIBER DIA.	FIBER PITCH	FIBER DESIGNATOR	MFD	MAXIMUM ATTENUATION (CABLED) dB/km 1310 nm	MAXIMUM ATTENUATION (CABLED) dB/km 1383 nm	MAXIMUM ATTENUATION (CABLED) dB/km 1550 nm
Fujikura SR15E-200 (864, 1728, 3456, 6912)	200 µm	250 µm	BE (ITU-T G.652.D and G.657.A1)	8.6 ± 0.4 µm	≤ 0.35 dB/km	≤ 0.35 dB/km	≤ 0.25 dB/km

Stripe Ring Fiber Identification — 864, 1728, 3456

R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING
1		5		9	
2		6		10	
3		7		11	
4		8		12	

Stripe Ring Fiber Identification — 6,912

R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING
1		7		13		19	
2		8		14		20	
3		9		15		21	
4		10		16		22	
5		11		17		23	
6		12		18		24	

FIBER COUNT	BINDER UNIT (BU)	RING MARKINGS
864F	12 Binder Units 1 2 3 4 5 6 7 8 9 10 11 12	1-6 Ring Marking
1728F	12 Binder Units 1 2 3 4 5 6 7 8 9 10 11 12	1-12 Ring Marking
3456F	24 Binder Units* 1 2 3 4 5 6 7 8 9 10 11 12	1-12 Ring Marking
	13 14 15 16 17 18 19 20 21 22 23 24	1-12 Ring Marking
6912F	24 Binder Units* 1 2 3 4 5 6 7 8 9 10 11 12	1-24 Ring Marking
	13 14 15 16 17 18 19 20 21 22 23 24	1-24 Ring Marking

*For binder units 13-24, the second binder unit is clear

Qualifications

GOVERNING BODY	STANDARD CODE	COMPONENT
Telcordia	GR-20	Fiber Optic Cable

Temperature Specifications

TEMPERATURE RANGE	
OPERATION	-40ºF to +158ºF (-40ºC to +70ºC)
STORAGE	-40ºF to +158ºF (-40ºC to +70ºC)
INSTALLATION	-22ºF to +140ºF (-30ºC to +60ºC)

Contact AFL for further details.

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