

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

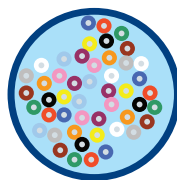
Applications

- 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

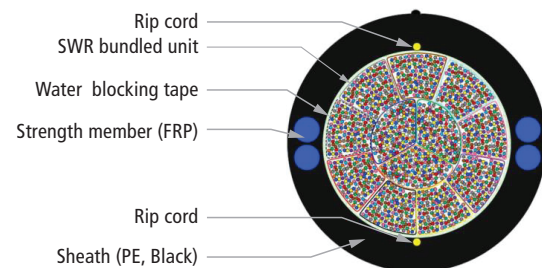
SWR Technology



12F SWR



Multiple 12F SWR Bundle



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

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

Mechanical Data—Non-Armored

DESCRIPTION	FIBER COUNT	BINDER UNIT	NOMINAL DIAMETER	WEIGHT lbs/1,000 ft (kg/km)	SHORT TERM/INSTALLATION		LONG TERM/STORAGE/STATIC	
			inches (mm)		MAX TENSILE LOAD lbs (N)	MIN BEND RADIUS inches (mm)	MAX TENSILE LOAD lbs (N)	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	1383 nm	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	1-6 Ring Marking
1728F	12 Binder Units	1-12 Ring Marking
3456F	24 Binder Units*	1-12 Ring Marking
6912F	24 Binder Units*	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

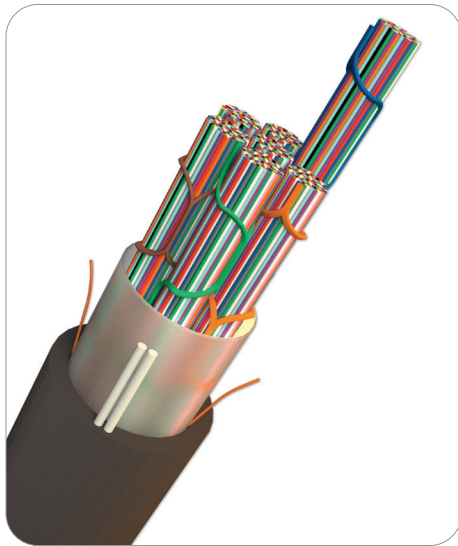
Temperature Specifications

TEMPERATURE RANGE	
OPERATION	-40°F to +158°F (-40°C to +70°C)
STORAGE	-40°F to +158°F (-40°C to +70°C)
INSTALLATION	-22°F to +140°F (-30°C to +60°C)

Contact AFL for further details.

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Fiber Optic Cable



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

The 200 μm fiber/200 μm pitch Wrapping Tube Cable (WTC) with SpiderWeb Ribbon® (SWR®) is an ultra-high density outside plant (OSP) 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

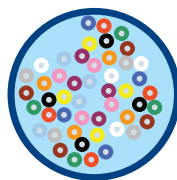
Applications

- 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

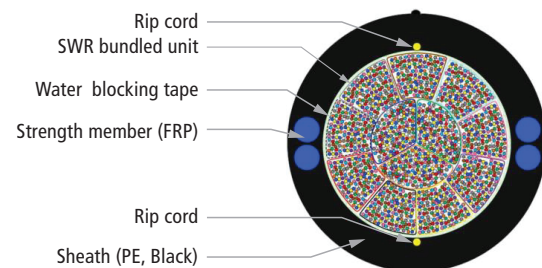
SWR Technology



12F SWR



Multiple 12F SWR Bundle



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

continued
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OSP Wrapping Tube Cable (WTC) with SWR® – 200 μm Fiber/200 μm Pitch

Mechanical Data—Non-Armored

DESCRIPTION	FIBER COUNT	BINDER UNIT	NOMINAL DIAMETER	WEIGHT	SHORT TERM/DYNAMIC/INSTALLATION		LONG TERM/STORAGE/STATIC	
			inches (mm)	lbs/1,000 ft (kg/km)	MAX TENSILE LOAD lbs (N)	MIN BEND RADIUS inches (mm)	MAX TENSILE LOAD lbs (N)	MIN BEND RADIUS inches (mm)
LWSE-864-BD-C-72-12-00N1D-*	864	12 X 72F	0.59 (15.0)	114 (170)	607 (2700)	11.8 (300)	182 (810)	8.9 (225)
LWSE-1728-BD-C-144-12-00N1D-*	1728	12 X 144F	0.75 (19.0)	178 (265)	607 (2700)	15.0 (380)	182 (810)	11.2 (285)
LWSE-3456-BD-C-144-24-00N1D-*	3456	24 X 144F	1.00 (25.5)	302 (450)	607 (2700)	20.1 (510)	182 (810)	15.1 (383)
LWSE-6912-BD-C-288-24-00N1D-*	6912	24 X 288F	1.17 (29.8)	430 (640)	607 (2700)	23.5 (596)	182 (810)	17.6 (447)

* 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	1383 nm	1550 nm
Fujikura SR15E-P200 (864F, 1728F, 3456F)	200 μm	200 μm	BD (ITU-T G.652.D & G.657.A1)	8.6 ± 0.4 μm	≤ 0.40	≤ 0.40	≤ 0.30
Fujikura BIS-B-P200 (6912F)	200 μm	200 μm	BB (ITU-T G.652.D & G.657.A2)	8.6 ± 0.4 μm	≤ 0.40	≤ 0.40	≤ 0.30

Stripe Ring Fiber Identification — 864, 1728, 3456

R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING	R NO.	STRIPE RING MARKING
1	█	4	███	7	████	10	█████
2	██	5	████	8	█████	11	██████
3	███	6	█████	9	██████	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	1-6 Ring Marking
1728F	12 Binder Units	1-12 Ring Marking
3456F	24 Binder Units*	1-12 Ring Marking
6912F	24 Binder Units*	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	-40°F to +158°F (-40°C to +70°C)
STORAGE	-40°F to +158°F (-40°C to +70°C)
INSTALLATION	-22°F to +140°F (-30°C to +60°C)

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