

## Flame-Retardant Wrapping Tube Cable (WTC) with SpiderWeb Ribbon® (SWR®)

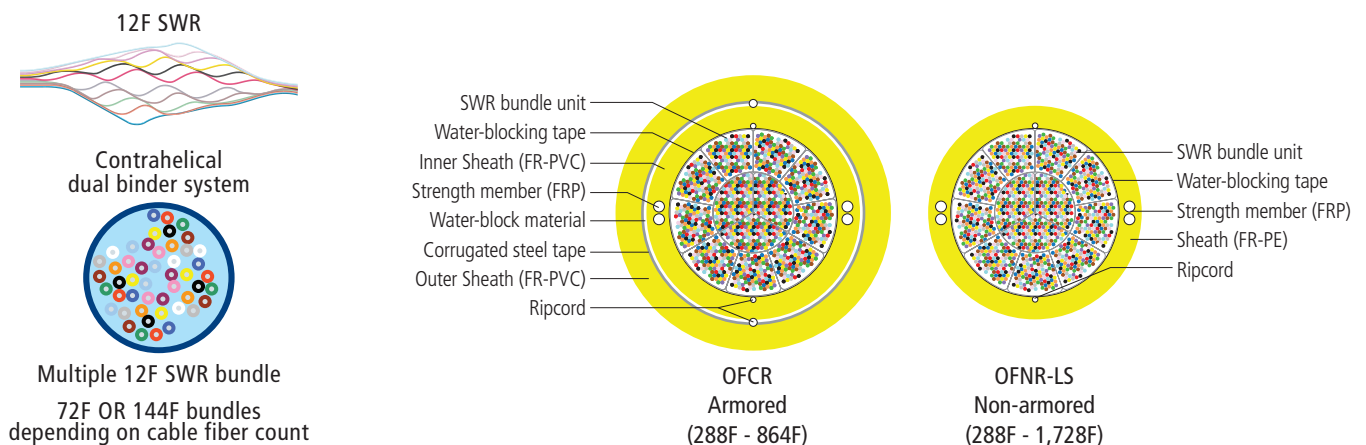
Flame-retardant (FR) Wrapping Tube Cable (WTC) with SpiderWeb Ribbon (SWR) is a high-density fiber optic ribbon cable intended for inside plant and indoor/outdoor network applications where riser-rated products are required. The FR-WTC-SWR incorporates the leading-edge SpiderWeb Ribbon technology in a robust, flame-retardant cable package that can be used within buildings and, because of the core water-blocking feature, can also be routed outside provided the cable is housed within covered pathway spaces including duct-banks and cable trays.

The FR-WTC-SWR product set is available in LSZH, non-armored (288F up to 1,728F) and FR-PVC double-jacket single-armored (288-F up to 864F) constructions.

### Features

- SpiderWeb Ribbon**  
 Collapsible ribbon reduces size of cable compared to other encapsulated or pliable ribbon technologies
- Wrapping Tube Package**  
 Wrapping Tube Cable design optimizes the fiber packing density making WTC-SWR cables the smallest ribbon cables without compromising robustness of the cable
- OFNR Riser Rating**  
 Can be routed within designated riser spaces within build structures
- CPR Certified (Non-armored)**  
 Suitable for use in applications requiring European Union (EU) flame, smoke and toxicity classification
- Small Diameter**  
 Because of the smaller diameter, more optical fibers can be placed into crowded or limited-space pathways
- Water-blocked Core**  
 Can be routed in outside pathways such as duct back or covered cable trays
- Light weight**  
 Cables are more easily handled in the field compared to traditional cables
- Completely Gel-free**  
 Reduced fiber access and prep time for splicing

### SWR Technology



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### Temperature Range

	Non-Armored	Armored
Operating	-20°C to +70°C	-40°C to +70°C
Storage	-40°C to +70°C	-40°C to +70°C
Installation	-10°C to +60°C	-10°C to +60°C

### Standards Compliance

Non-Armored	Armored
• UL 1666, Listed Riser	• UL 1666, Listed Riser
• ANIS/ICEA S-83-596	• UL 1685, Fire Propagation and Low Smoke
• EN 13501-6 (CPR)	• ANSI/ICEA-S-83-596

### Mechanical Data—Non-Armored

DESCRIPTION	EN 13501-6 CLASSIFICATION	FIBER COUNT	NOMINAL DIAMETER	WEIGHT	SHORT TERM / 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)
FR-OGNM12WTZTWBE-ACEX288C	Cca-s1a, d0, a1	288	0.512 (13.0)	127 (190)	296 (1320)	10 (254)	89 (396)	8 (203)
FR-OGNM12WTZTWBE-ACEX432C	B2ca-s1, d0, a1	432	0.591 (15.0)	161 (240)	296 (1320)	12 (304)	89 (396)	9 (228)
FR-OGNM12WTZTWBE-ACEX864C	Cca-s2, d0, a1	864	0.728 (18.5)	228 (340)	296 (1320)	15 (381)	89 (396)	12 (304)
FR-OGNM12WTZTWBE-SR15EX1728C	Cca-s2, d0, a1	1728	0.945 (24.0)	355 (530)	296 (1320)	19 (482)	89 (396)	14 (355)

\*For fiber type, replace ### with designator in Optical Fiber table.

### Mechanical Data—Double Jacket Single Armor

DESCRIPTION	FIBER COUNT	NOMINAL DIAMETER	WEIGHT	SHORT TERM / 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)
FR-OGNM12WTZTWBE-ACEXCTZV-288C	288	0.768 (19.5)	295 (440)	600 (2670)	15 (381)	180 (801)	12 (304)
FR-OGNM12WTZTWBE-ACEXCTZV-432C	432	0.827 (21.0)	329 (490)	600 (2670)	17 (432)	180 (801)	13 (330)
FR-OGNM12WTZTWBE-ACEXCTZV-864C	864	0.965 (24.5)	422 (630)	600 (2670)	19 (482)	180 (801)	14 (335)

### Optical Fiber

OPTICAL FIBER	FIBER BUFFER $\mu$ m	OPTICAL FIBER STANDARD	MFD	MAXIMUM ATTENUATION (CABLED) dB/km		
				1310 NM	1383 NM	1550 NM
Fujikura ACE (288-864)	250	(ITU-T G.652D/G.657.A1)	9.2 $\pm$ 0.4 $\mu$ m	$\leq$ 0.40	$\leq$ 0.40	$\leq$ 0.30
Fujikura SRI5E (1728)	250	(ITU-T G.652D/G.657.A1)	8.6 $\pm$ 0.4 $\mu$ m	$\leq$ 0.40	$\leq$ 0.40	$\leq$ 0.30

### Stripe Ring Fiber Identification

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

FIBER COUNT	BINDER UNIT (BU)	RING MARKINGS
144F	No Binder Unit	1-12 Ring Marking
288F	4 Binder Units	1-6 Ring Marking
432F	6 Binder Units	
576F	8 Binder Units	
864F	12 Binder Units	
1728F	12 Binder Units	1-12 Ring Marking