

Wrapping Tube Cable (WTC[™]) with 12 Fiber Spider Web Ribbon (SWR[™]) Indoor, Indoor/Outdoor WTC[™] 144 – 6912F



The Wrapping Tube Cable (WTC[™]) with Spider Web Ribbon (SWR[™]) is an ultra-high density cable designed for fiber-to-the-home (FTTH), access markets, and data centers. WTC[™] with SWR[™] offers the smallest cable diameter and lowest weight among high-fiber count ribbon cables in the industry. It is available in fiber counts ranging from 144 to 6,912.

SWR[™] is an intermittent bonded fiber ribbon design allowing for either a highly efficient ribbon splicing or an individual fiber breakout splicing process. With the ability to roll and conform, the SWR[™] provides ultra high density fiber packaging in the WTC[™].

Indoor, Indoor/Outdoor WTC[™] are compliant to requirements of both the European construction products regulation (CPR) and the North American standard UL. This incorporates the leading-edge Spider Web 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.

Features

- UV Resistant (for Indoor/Outdoor)
- Full dry (gel-free) construction
- Mid Span Access
- Fully dielectric
- OFNR-ST1
- CPR Certified
- Splicing compatibility with 250µm Ribbon

Physical & Mechanical Characteristics

Fi	Fiber count		144F	192F	288F	432F	576F	864F	1152F	1728F	2880F	3456F	6912F
Cable diameter (in approx.)		mm (in.)	12.5 (0.492)	13.0 (0.512)	13.0 (0.512)	14.5 (0.571)	15.5 (0.610)	17.0 (0.669)	18.0 (0.709)	21.5 (0.846)	25.0 (0.984)	25.5 (1.004)	34.5 (1.358)
Cable weight (in approx.)		kg/km (lbs/1000ft)	165 (111)	175 (118)	190 (128)	215 (145)	240 (161)	290 (219)	325 (717)	475 (320)	615 (414)	675 (454)	955 (642)
Fibers p	Fibers per bundled unit		-			72F		144F		288F	144F	288F	
Number	Number of bundled units			-		6	8	12	8	12	10	24	24
Tensile performance	Short term(*2)	N			1300			2700					
(*1)	Long term	Ν			399	810							
Bending	Cyclic Flexing	mm	125	130	130	145	155	170	180	215	250	270	345
radius(*1)	Cable bend	mm	125	130	130	145	155	170	180	215	250	270	345
	Compressive strength(*1)							2200					
Impact resistance(*1)		N ∙m		4.4									

*1. Reference standard : ANSI/ICEA S-104-696

*2. Please follow the appropriate procedure that Fujikura recommends for pulling cable



Application

- Indoor, Indoor/Outdoor installation
- Riser for vertical use in shafts or from floor to floor



Optical Fiber Characteristics

Fiber	Fiber	Fiber Pitch	Eiber Tupe	MFD	Maximum Attenuation (Cabled) (dB/km)		
Count	Diameter		Fiber Type	INIFD	1310 nm	1383 nm (*3, 4)	1550 nm
144F to 6912F	200 µm	250 µm	SR15E-200 (ITU-T G.652.D and G.657.A1)	8.6 ± 0.4 µm	≤ 0.40	≤ 0.40	≤ 0.30

*3. The value after hydrogen aging in optical fiber in accordance with IEC 60793-2-50 test procedure.

*4. The value before coloring process

Fiber Colors in 12F SWR

No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11	No.12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Turquoise

Stripe Ring Mark (*5, 6)

	(-, -)				
SWR No.1	SWR No.2	SWR No.3	SWR No.4	SWR No.5	SWR No.6
SWR No.7	SWR No.8	SWR No.9	SWR No.10	SWR No.11	SWR No.12
SWR No.13	SWR No.14	SWR No.15	SWR No.16	SWR No.17	SWR No.18
SWR No.19	SWR No.20	SWR No.21	SWR No.22	SWR No.23	SWR No.24

*5. Each block denotes "5" and each bar denotes "1".

*6. The order of block and bar for SWR may be reversed in the cable (e.g. No.6 may be **SWR** or **I**)

Environmental Characteristics

	Installation	-30°C to 60°C (-22°F to +140°F)
Temperature cycling	Operation	-40°C to 70°C (-40°F to +158°F)
	Transportation/Storage	-40°C to 70°C (-40°F to +158°F)

Reference standard : ANSI/ICEA S-104-696

Flame Retardant Characteristics

Fiber count	144, 192, 288, 432, 576, 864,1152, 1728F	2880, 3456, 6912F		
EN13501-6 Classification	Cca-s1b,d1,a1	Cca-s1,d0,a1		
Vertical test	UL 1666			
Fire propagation with smoke-release test	UL 1685			

