

## Wrapping Tube Cable (WTC) with Spider Web Ribbon® (SWR®)

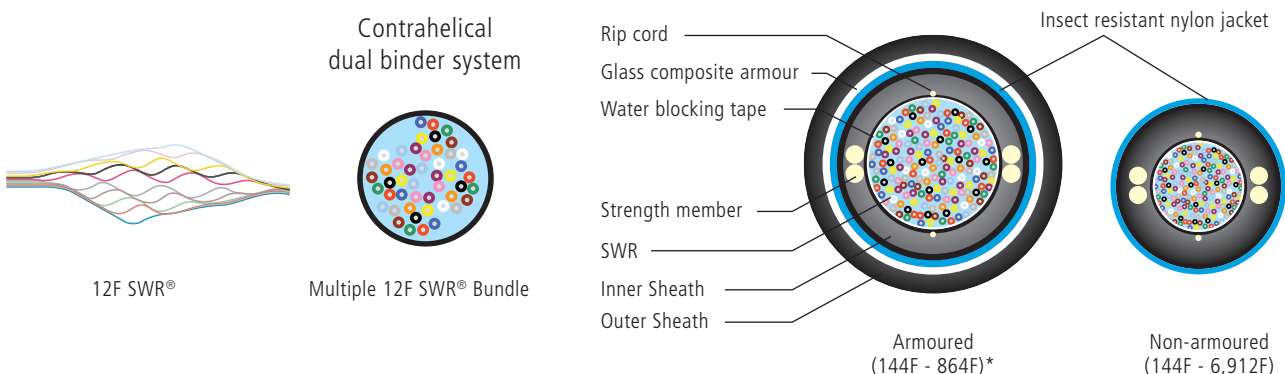
Wrapping Tube Cable (WTC), with Spider Web Ribbon® (SWR®), is an ultra-high density outside plant cable designed specifically for Data Centre, Telco, Fibre-to-the-home (FTTH) or access markets. With an ultra-high density and a new ribbon technology called Spider Web Ribbon®, WTC provides the smallest cable diameter and lowest weight, high-fibre count ribbon cable in the industry. WTC with SWR® cables are available in fibre counts from 144 to 6,912.

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

### Features

- Access Ready Construction (ARC)**  
 Completely gel-free construction with easy-to-access and identify optical fibre circuits.
- Spider Web Ribbon® (SWR®) optical fibre technology**  
 Easily ribbonised for mass fusion splicing. SWR® is compacted and routed like individual fibres. Ideal for organising slack loops in splice enclosures as there is no preferential bending of ribbon.
- Significantly higher fibre density compared to traditional ribbon cables**  
 Offers ability to expand capacity of existing pathways and allows use of smaller, lower cost duct system.
- Smaller cable diameters and cable weights**  
 Means longer reel lengths that allow for lower scrap rates, easier handling of reels at the site and reduced transportation costs.
- Completely dry water-blocking technology**  
 Reduces time required to prep cable-end and mid-span access resulting in labour savings.
- Compact ribbon bundles**  
 Reduces enclosure/splice tray size requirements allowing for smaller telecommunications space allocation.
- Armoured and non-armoured packages**  
 Supports all the standard cable deployment options typically found in the OSP environment including, duct, direct buried and aerial.
- Fully qualified to Telcordia GR-20, IEC 60794, IEC 60793, AS/CA S008:2010, ITU-T G.652.D and G.657.A1**  
 Provides assurance that the cable will support optical fibre network transport functions now and into the future.

### ARC SWR® Technology



\* Higher fibre count options verified upon request

## Wrapping Tube Cable (WTC) with Spider Web Ribbon® (SWR®)

### Temperature Range

Operating	-30°C to + 70°C
Storage	-30°C to + 70°C
Installation	-30°C to + 60°C

### Mechanical Data - Termite Resistant Cable

PART NUMBER	DESCRIPTION	FIBRE COUNT	BINDER UNIT	Nom. DIAMETER	Nom. WEIGHT	SHORT TERM / UNDER LOAD		LONG TERM / NO LOAD		CRUSH (kN/100mm)
				mm	kg/km	MAX TENSILE (N)	MIN BEND RADIUS	MAX TENSILE (N)	MIN BEND RADIUS	
W5D1LFWA144BE	SWR WTC 250micron SM 144F PE/NY	144	1 x 144F	11.9	106	2700	20 x OD	810	15 x OD	2.2
W5D1LFWA288BE	SWR WTC 250micron SM 288F PE/NY	288	4 x 72F	12.9	123					
W5D1LFWA432BE	SWR WTC 250micron SM 432F PE/NY	432	6 x 72F	14.4	155					
W5D1LFWA576BE	SWR WTC 250micron SM 576F PE/NY	576	8 x 72F	15.9	172					
W5D1LFWA864BE	SWR WTC 250micron SM 864F PE/NY	864	12 x 72F	18.4	241					
W5D1LFWA1152BE	SWR WTC 250micron SM 1152F PE/NY	1152	8 x 144F	19.4	268					
W5D1LMWA1728BE	SWR WTC 200micron SM 1728F PE/NY	1728	12 x 144F	22.4	332					
W5D1LMWA3456BE	SWR WTC 200micron SM 3456F PE/NY	3456	24 x 144F	27.4	513					
W5D1LMWA6912BE	SWR WTC 200micron SM 6912F PE/NY	6912	24 x 288F	36.0	868					

### Mechanical Data - Termite Resistant Cable + Sacrificial Jacket

PART NUMBER	DESCRIPTION	FIBRE COUNT	BINDER UNIT	Nom. DIA.	Nom. WEIGHT	SHORT TERM / UNDER LOAD		LONG TERM / NO LOAD		CRUSH (kN/100mm)
				mm	kg/km	MAX TENSILE (N)	MIN BEND RADIUS	MAX TENSILE (N)	MIN BEND RADIUS	
W5H1LFWy144xx	SWR WTC 250micron SM 144F PE/NY/PE	144	1 x 144F	13.9	144	2700	20 x OD	810	15 x OD	2.2
W5H1LFWy288xx	SWR WTC 250micron SM 288F PE/NY/PE	288	4 x 72F	14.9	162					
W5H1LFWy432xx	SWR WTC 250micron SM 432F PE/NY/PE	432	6 x 72F	16.4	199					
W5H1LFWy576xx	SWR WTC 250micron SM 576F PE/NY/PE	576	8 x 72F	17.9	219					
W5H1LFWy864xx	SWR WTC 250micron SM 864F PE/NY/PE	864	12 x 72F	20.4	297					
W5H1LFWy1152xx	SWR WTC 250micron SM 1152F PE/NY/PE	1152	8 x 144F	21.4	326					
W5H1LMWy1728xx	SWR WTC 200micron SM 1728F PE/NY/PE	1728	12 x 144F	24.4	400					

xx = PE Sacrificial Jacket Colour (**BK** - Black, **BE** - Blue, **YW** - Yellow) \*Other colours on request  
y = **A** if Black Sacrificial Jacket & **B** for all other Colours

### Mechanical Data - Termite & Rodent Resistant Cable

PART NUMBER	DESCRIPTION	FIBRE COUNT	BINDER UNIT	Nom. DIAMETER	Nom. WEIGHT	SHORT TERM / UNDER LOAD		LONG TERM / NO LOAD		CRUSH (kN/100mm)
				mm	kg/km	MAX TENSILE (N)	MIN BEND RADIUS	MAX TENSILE (N)	MIN BEND RADIUS	
N5D1LFWB144xx	SWR WTC 250micron SM 144F PE/NY/GC/PE	144	1 x 144F	17.1	228	2700	30 x OD	810	15 x OD	2.2
N5D1LFWB288xx	SWR WTC 250micron SM 288F PE/NY/GC/PE	288	4 x 72F	18.1	245					
N5D1LFWB432xx	SWR WTC 250micron SM 432F PE/NY/GC/PE	432	6 x 72F	19.6	287					
N5D1LFWB576xx	SWR WTC 250micron SM 576F PE/NY/GC/PE	576	8 x 72F	21.1	311					
N5D1LFWB864xx	SWR WTC 250micron SM 864F PE/NY/GC/PE	864	12 x 72F	23.6	403					

xx = PE Outer Jacket Colour (**BK** - Black, **BE** - Blue, **YW** - Yellow) \*Other colours on request

**Note:** High fibre count options verified upon request.

## Wrapping Tube Cable (WTC) with Spider Web Ribbon® (SWR®)

### Optical Fibre

FIBRE COUNT	FIBRE DESIGNATOR	MFD (@1310nm)	MAXIMUM ATTENUATION (CABLED) dB/km		
			1310 NM	1383 NM	1550 NM
144, 288, 432, 576, 864, 1152	LF (ITU-T G.652D/G.657.A1) FutureGuide® SR15E-250	8.6 ± 0.4 µm	≤0.40	≤0.40	≤0.30
1728, 3456, 6912	LM (ITU-T G.652D/G.657.A1) FutureGuide® SR15E-200	8.6 ± 0.4 µm	≤0.40	≤0.40	≤0.30

### Stripe Ring Fibre Identification

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
█████	█████	█████	█████	█████	█████

Each block denotes '5' and each bar denotes '1'

The order of the block and bar for SWR may be reversed in each bundle unit (eg. No.6 may be ███ or ████ )

FIBRE COUNT	BINDER UNIT (BU)												RING MARKINGS	
144F	No Binder Unit												1-12 Ring Marking	
288F	4 Binder Units	1	2	3	4									1-6 Ring Marking
432F	6 Binder Units	1	2	3	4	5	6							
576F	8 Binder Units	1	2	3	4	5	6	7	8					
864F	12 Binder Units	1	2	3	4	5	6	7	8	9	10	11	12	
1152F	8 Binder Units	1	2	3	4	5	6	7	8					1-12 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	
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	

For binder units 13 - 24 the second binder unit is clear.