

Armored Multitube Ribbon Fiber Cable

Product Details

Multitube Single Jacket Steel tape Armored Ribbon Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibers are arranged into ribbon units by placing the fibers in an array of 12 color-coded fibers bonded together by a UV-curable matrix material. The Ribbon units placed inside robust buffer tubes are stranded around a fiber reinforced plastic (FRP) central strength member. In addition to optical fibers, the buffer tubes,, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated Steel Tape armor surrounds the cable core with thermoplastic jacket placed over the armor layer making the cable robust and installation friendly.

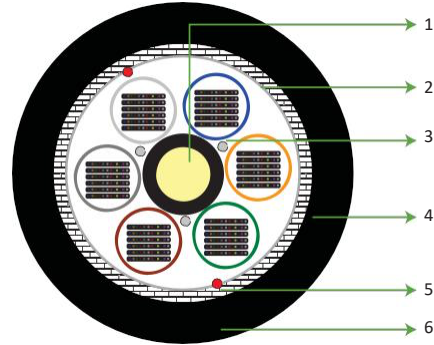
Applications

Ribbon cable design meets the application which requires delivering the highest fiber density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications. These can be used induct or direct buried installation applications.

Features & benefits

- Available up to 1152 fiber count in either single-mode or multi-mode optical fibers
- These cables have high fiber count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fiber and ribbon geometries result in excellent mass-fusion splicing yields
- Fiber ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Steel tape adds to crush resistance as well as can be used as a cable locator after installation
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fiber types available on request

Typical construction of cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS & GEL
3. WS YARNS
4. CORRUGATED STEEL TAPE
5. RIPCORD(S)
6. OUTER SHEATH



Underground



Rodent Protection



Water blocked



UV Protected



Quick Splice

Performance Standards

Cable complies to the following main Standards EC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations,

Specifications

physical characteristics							
Fiber Count	72	96	144	288	432	864	1152
No of Ribbon	6	8	12	24	36	72	96
Ribbon / Tube	2	2	2	4	6	12	12
Fibers/ Tube	24	24	24	48	72	144	144
Nominal Cable Diameter (mm) ± 0.5mm	19.5	19.5	21.8	21.8	23.5	27.8	34.0
Nominal Cable Weight (kg/km) ± 10%	305	305	370	390	470	625	930
Mechanical and environmental characteristics*							
Test	Standard / Notes	Product Performance					
Max. Tensile Strength (N)	IEC-60794-1-21-E1	3000	3000	3000	3000	3000	3000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D					
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	50					
Torsion	IEC-60794-1-21-E7	± 180°					
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

* After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fiber break.

Cabled Optical Fibers characteristics

The optical fibers are in accordance to the specifications ITU-T G.652D & G657A2. Refer to specific data sheets for details.

Transmission Characteristics*						
Fiber Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (cc), nm <small>1310nm</small>
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,15	≤ 1260

** This fiber is also available as a bend insensitive fiber

Fiber Standard color code (“As Per EIA/TIA 598”)



Tube Standard color code (“As Per EIA/TIA 598”)



Packing and lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customized drum lengths available on request.