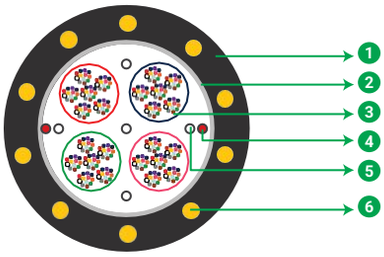
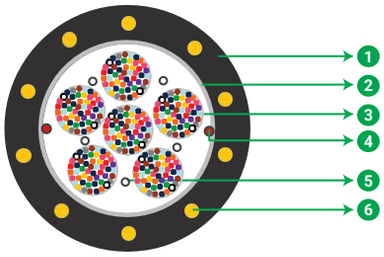
Product Specification

Celesta

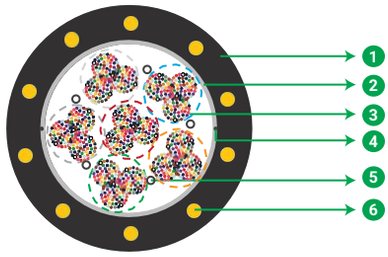
Intermittently Bonded Ribbon OFC
Single Sheath Duct 96F~6912F



96F-576F



864F



3456F

1. OUTER SHEATH
2. WATER BLOCKING TAPE
3. BUNCH OF IBRs
4. RIPCORDS
5. WATER SWELLABLE YARNS
6. EMBEDDED STRENGTH MEMBER

** Typical Construction Diagram - Not to Scale*

Features & Benefits

- Special bend insensitive fibre results in increased power budget and network serviceability
- Unique cable design allows deployment by blowing and pulling
- Innovative Colour-coded bonded design for easier and faster Ribbon identification
- Black Printing for easier and faster Ribbon identification
- Precise fibre and ribbon geometries result in excellent mass fusion splicing yields
- Multiple ribbon bundles design with ripcords for easy and quick mid-span access
- Aramid reinforced plastic strength members for mitigating preferential bending
- Dry water-blocking technology for gel free core helps in quicker end preparation

Product Details

STL's Celesta Intermittent Bonded Ribbon Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The innovative ribbon bond design results in dense fibre packing and smaller cable diameter. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications.

Cable Performance Standards

Cable complies to the following standards IEC 60793, IEC 60794, ANSI/ICEA S-122-744, Telcordia GR-20, ITU-T, RoHS, REACH, EIA/TIA-598C.

Printing Details

STL SM “FIBRE COUNT” “FIBRE TYPE” CELESTA IBR OFC LASER SYMBOL TELEPHONE SYMBOL YEAR OF MANUFACTURE LENGTH CODE METER MARKING

Note : The accuracy of marking shall be + 0.5%. Occasional loss of printing & remarking shall be as per Bell core GR 20, and this supersedes the earlier markings.

Specifications

Physical Characteristics	
Maximum Cabled Attenuation (dB/km)	1310nm : 0.4 & 1550nm : 0.3
PMD LDV (ps/sqrt.km)	≤ 0.2
Ribbon Type	Intermittently Bonded Ribbon (IBR)
Fibre per IB Ribbon	12
Water Blocking Elements	Yarns and Water Swellable Tape
No. of Ripcords	2
Strength Member	Aramid Reinforced Plastic (ARP) Embedded in outer Sheath
Outer Sheath Material	UV Proof Black Polyethylene

Cable Designs Compatible with ITU-T G.657.A2 Fibre						
Product Code	**No. of Fibres**	**Bundling of Ribbons (Bundle x Fibre)**	**Fibre Type**	**Cable Diameter mm (± 5%)**	**Cable Weight Kg/Km (± 10%)**	**Tensile Strength N**
R10096S201FAP10000	96	1 x 96	STL HD A2 250	8.2	45	1000
R10144S202FAP10000	144	2 X 72	STL HD A2 250	11.7	78	1000
R10288S204FAP10000	288	4 X 72	STL HD A2 250	11.7	96	2500
R10432S206FAP10000	432	6 X 72	STL HD A2 250	12.7	110	2700
R10576S204FAP10000	576	4 X 144	STL HD A2 250	14.0	130	2700
R10864S206FAP10000	864	6 x 144	STL HD A2 250	17.7	200	2700
R11728S206FAP10000	1728	6 x 288	STL HD A2 250	23.5	332	2700
R13456S912FAP10000	3456	12 x 288	STL HD A2 200	27.0	520	2700
R16912S906FAP10000	6912	6 x 1152	STL HD A2 200	35.2	700	2700

Cable Designs Compatible with ITU-T G.652.D/G.657.A1/G.657.A2 Fibre						
Product Code	No. of Fibres	Bundling of Ribbons (Bundle x Fibre)	Fibre Type	Cable Diameter mm (± 5%)	Cable Weight Kg/Km (± 10%)	Tensile Strength N
R10096C101FAP10000	96	1 x 96	STL Stellar 250	8.2	45	1000
R10144C102FAP10000	144	2 X 72	STL Stellar 250	11.7	78	1000
R10288C104FAP10000	288	4 X 72	STL Stellar 250	11.7	96	2500
R10432C106FAP10000	432	6 X 72	STL Stellar 250	12.7	110	2700
R10576C104FAP10000	576	4 X 144	STL Stellar 250	14.0	130	2700
R10864C106FAP10000	864	6 x 144	STL Stellar 250	17.7	200	2700
R11728C106FAP10000	1728	6 x 288	STL Stellar 250	23.5	332	2700

Mechanical & Environmental Characteristics		
Cable Characteristics	Cable Performance	Testing Standard
Tensile Strength (N) (lbf)	Short Term – as per above table Long Term – 1/3rd of the short term tensile	IEC 60794-1-21-E1
Crush Resistance (N/cm)	220	IEC 60794-1-21-E3
Impact Strength (Nm)	10	IEC 60794-1-21-E4
Torsion	±180°	IEC 60794-1-21-E7
Min. Bend Radius (During Installation)	20 D	IEC 60794-1-21-E11
Min. Bend Radius (After Installation)	15 D	IEC 60794-1-21-E11
Water Penetration Test	1m water head, 3m samples, 24 h	IEC 60794-1-21-F5
Temperature Performance	Max. change in attenuation shall be </= 0.15 dB/km	IEC 60794-1-21-F1
Installation	-5°C to +70°C	
Operation	-30°C to +70°C	
Storage	-40°C to +70°C	

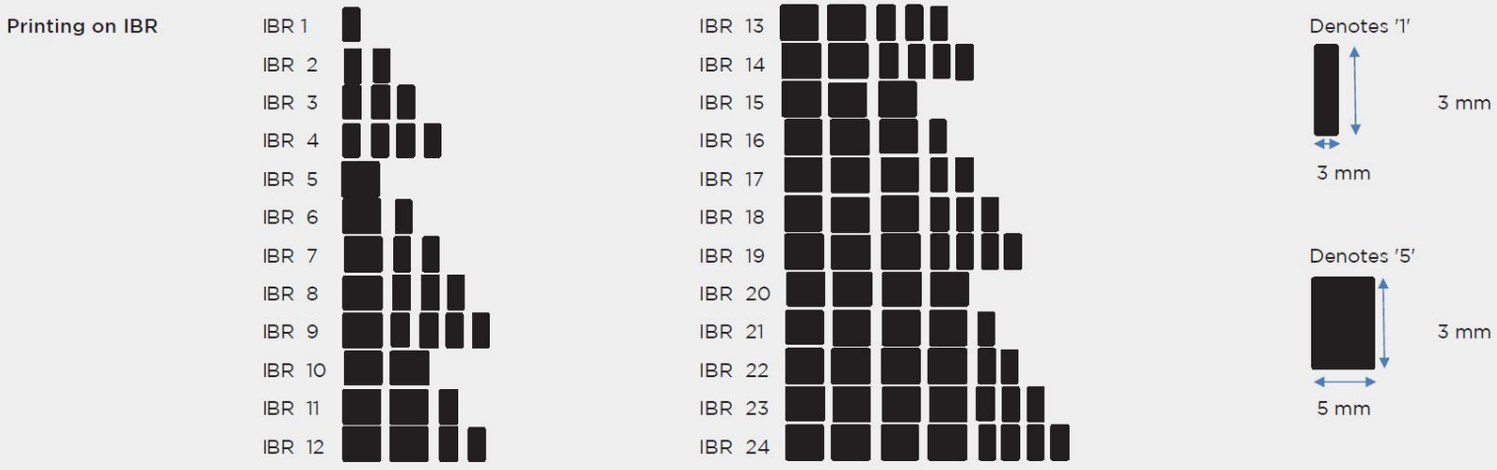
Note : All tests shall be carried out as per IEC standards. Change in attenuation after and before testing shall be </= 0.05 dB/km for Single Mode Fibre.

Packing and Lengths

Drum Type	Length Multiple (Feet)	Order Tolerance	Non-standard Length
Wooden Drums	2,000 | 4000 | 6000 ± 5% (up to 864F) 2,000 | 4000 | ± 5% (for 1728F, 3456F, 6912F)	± 5%	Max 20%, Customer Approval

Specifications

IBR Identification Printing and Colour Sequence											
Fibre/ Binder Colour Sequence (AS per EIA/TIA 598C)											
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua



For additional information please contact your sales representative.

You can also visit our website at www.stl.tech