

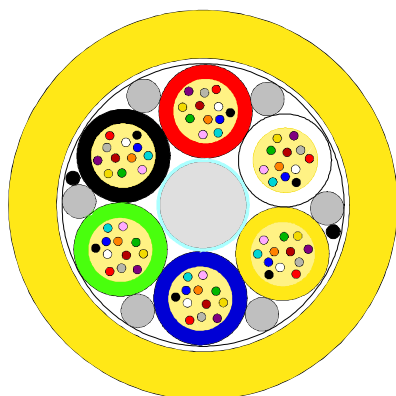
JN-SM-LRE XS-line

180 , 192 and 216 fibres

Specification for stranded loose tube mini cables for use in ducts and microducts Cable Design

Acc. to IEC 60794-5

JetNet:Stranded Loose Tube Fiber Optic Cable -dry core- single sheath



- not to scale -

- **Optical fibre:** ITU-T G657A1 fibre, see specification C17.
- **Secondary coating:** The fibres are, uniquely identified by a different colour, placed inside 'loose tubes' made of high tensile strength thermoplastic compound.
- **Gel compound:** The tubes are fully filled with a non-toxic and dermatological safe gel compound.
- **Central Strength Member (CSM):** The central element consists of FRP (Fibre Reinforced Plastic), with a water-swellaable layer.
- **Cable core:** The required number of tubes and dummy elements is stranded (SZ method) around the central element.
- **Strength Yarns:** Under the outer sheath 2 aramid yarns are applied, serving as ripcord and as strengthening yarns
- **Fillers:** between stranded tubes and sheath to improve mechanical characteristics.
- **Outer sheath:** HDPE .Yellow.

Application

Installation in backbones, metropolitan and access networks in ducts and micro-ducts (inner diameter 9.6mm).

Configuration

No. of Fibers	No. of Tubes	Tube size in/outside [mm]	Number of fibres/tube [mm]	Diameter over cable core [mm]	Cable Diameter [mm]	Cable Weight [kg/km]
180	5+ 1 filler	1.9/2.5	36	7.6	8.4	65
192	6	1.9/2.5	4x36 + 2x24	7.6	8.4	65
216	6	1.9/2.5	36	7.6	8.4	65

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	500N Long term 1000N Short term	No fibre strain $\Delta\alpha \leq 0.05$ dB
Crush	IEC 60794-1-2-E3	1000 N / 100 mm short term	$\Delta\alpha \leq 0.05$ dB
Impact	IEC 60794-1-2-E4	2Nm, r=200mm 3 spots	$\Delta\alpha \leq 0.05$ dB
Repeated Bending	IEC 60794-1-2-E6	R=25x D, 100 cycle	$\Delta\alpha \leq 0.05$ dB
Cable Bend	IEC 60794-1-2-E11	R=20x D	$\Delta\alpha \leq 0,05$ dB
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m	no water leakage in 24h

Temperature Range	Transportation & Storage:	- 20 to + 70 °C
	Installation:	- 10 to + 50 °C
	Operation:	- 20 to + 70 °C

All optical measurements at 1550 nm.

Identification and Packing

Fiber Colours

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

Yarn Colours for bundle of 12 fibres

No.	1	2	3
Color	Red	White	Yellow

Tube Colours

No.	1	2	3	4	5	6
Colour	Red	White	Yellow	Blue	Green	Black
Fibre distribution for 180 fibres	36 OF	36 OF	36 OF	36 OF	36 OF	filler
Fibre distribution for 192 fibres	36 OF	36 OF	24 OF	36 OF	36 OF	24 OF
Fibre distribution for 216 fibres	36 OF	36 OF	36 OF	36 OF	36 OF	36 OF

Sheath Marking: The outer sheath is marked in 1 meter intervals as follows:

JETNET DRAKA [fibre count]x[fibre type] XSline [length marking] M

Packing:

Standard length	4000 metres (-50- +100m)
Protection on drum	Layer of Lamiflex® foil over the outer layer of cable