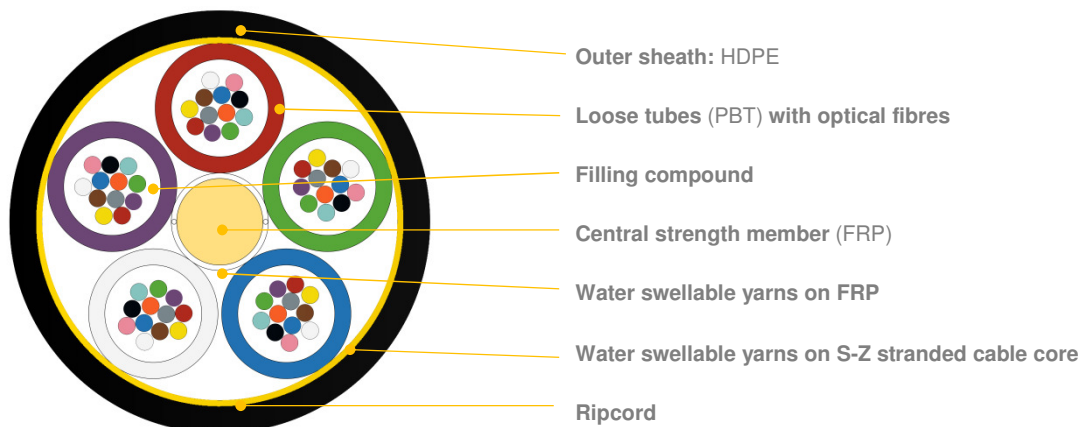


MetroJET MK-LX5 - Multi loose tube microcable (up to 60F)



*Schematic drawing, not to scale

APPLICATION:

Microduct cabling air-blowing system application
 Metro networks
 Flexible network design
 Distribution network

DESIGN:

HDPE, UV stabilized outer jacket with low coefficient of friction
 Loose tubes (and fillers), SZ stranded around the CSM
 Each PBT tube containing up to 12 optical fibres

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]
	Fibres	Fibres per tube	Total elements	Active tubes		
1-5T x 4F	4-20	4	5	1-5	5.2	21
1-5T x 6F	6-30	6	5	1-5	5.2	21
1-5T x 8F	8-40	8	5	1-5	5.2	21
1-5T x 10F	10-50	10	5	1-5	5.2	22
1-5T x 12F	12-60	12	5	1-5	5.2	22

APPLICATION:

Temperature range	Transport & Storage:	- 40 to + 70 °C	Minimum Bending Radius	
	Installation:	- 15 to + 60 °C	Under maximum tension:	20 x cable Ø
	Operation:	- 30 to + 70 °C	Without tension:	10 x cable Ø

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Test Standard	Specified Value	Requirement
Max allowed tension	IEC 60794-1-21-E1	500 N ($\epsilon_r \leq 0.33\%$) / 700 N ($\epsilon_r \leq 0.5\%$)	$\Delta\alpha$ reversible
Max operating tension	IEC 60794-1-21-E1	150 N	$\Delta\epsilon_r \leq 0.05\%$, $\Delta\alpha \leq 0.05$ dB/km
Crush	IEC 60794-1-21-E3	1000 N / 100 mm, max. 5 min	$\Delta\alpha$ reversible, no significant damage
Impact	IEC 60794-1-21-E4	10J, 3 impacts, R= 300 mm, 500mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794-1-21-E7	2m, 50N, $\pm 180^\circ$, 15 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Repeated bending	IEC 60794-1-21-E6	R=15x D, 45N, 15 cycles	no damage
Cable bend	IEC 60794-1-21-E11	R=20x D, 10 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature cycling	IEC 60794-1-22-F1	-30 °C to +70 °C -40 °C to +70 °C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.10$ dB/km
Water penetration	IEC 60794-1-22-F5B	sample=3m, water column=1m, 24h	no water leakage

(*) values for single-mode fibres, all optical measurements performed at @1550nm

FIBRE PARAMETERS

For selected post-production optical fibres parameters please see DSH_OFPP document.

OPTICAL FIBRE AND MODULES COLOUR IDENTIFICATION

For optical fibres and modules identification information please see DSH_Colors_CODE_XXXX document.

Type:	Metrojet MK-LX5	REV: 1.3
Issued:	08/08/2016	PB
Modified:	23/12/2020	AM

MARKING

The following print (ink jet, laser or other suitable method depending on availability) is applied at 1-meter intervals::

- Supplier: FIBRAIN
- Standard code (Product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: FIBRAIN METROJET MK-LX5 60F SM G652D 5T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is $\pm 0,5\%$. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Identification information label will be placed on the drum.

DELIVERY LENGTH

2000 – 8000 meters $\pm 5\%$, with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed.

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