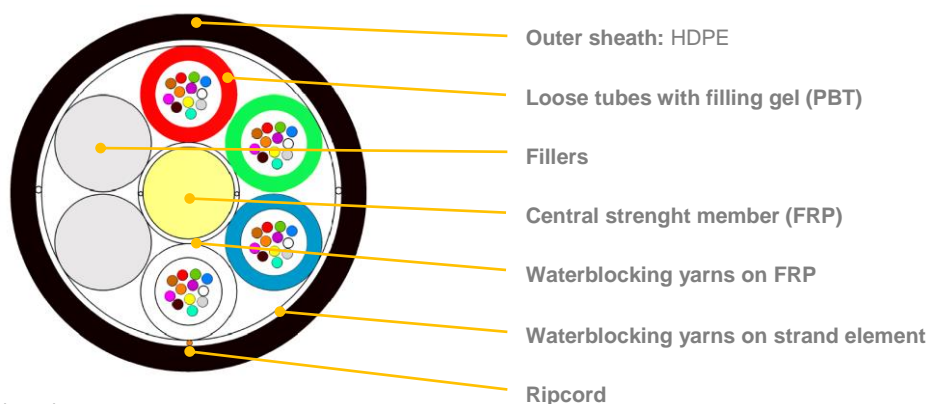


|               |                 |        |
|---------------|-----------------|--------|
| Type:         | Metrojet MK-LX6 | REV: 4 |
| Construction: | 06/10/2014      | SK     |
| Modify:       |                 |        |

**MetroJET MK-LX6 multi loose tube microcable (up to 72F)**



\*Schematic drawing, not in scale

**APPLICATION:**

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

**STRUCTURE AND COMPOSITION:**

HDPE, UV resistance external jacket with low friction  
 Loose tubes (and fillers), SZ stranded around the CSM  
 Each PBT tubes containing 4-12 pcs optical fibers  
 Smallest outer diameter for blowing into 8mm (ID) ducts

**CONSTRUCTION :**

| Version  | Fibers | Fibers per tube | Qty            |              |         | Ø nominal (+-5%) [mm] | Nominal weight (+-10%) [kg/km] |
|----------|--------|-----------------|----------------|--------------|---------|-----------------------|--------------------------------|
|          |        |                 | Total elements | Active tubes | Fillers |                       |                                |
| 1T x 4F  | 4      | 4               | 6              | 1            | 5       | 5.6                   | 28                             |
| 1T x 6F  | 6      | 6               | 6              | 1            | 5       | 5.6                   | 28                             |
| 1T x 8F  | 8      | 8               | 6              | 1            | 5       | 5.6                   | 28                             |
| 2T x 6F  | 12     | 6               | 6              | 2            | 4       | 5.6                   | 29                             |
| 4T x 6F  | 24     | 6               | 6              | 4            | 2       | 5.6                   | 29                             |
| 6T x 6F  | 36     | 6               | 6              | 6            | 0       | 5.6                   | 29                             |
| 1T x 12F | 12     | 12              | 6              | 1            | 5       | 5.6                   | 30                             |
| 2T x 12F | 24     | 12              | 6              | 2            | 4       | 5.6                   | 30                             |
| 3T x 12F | 36     | 12              | 6              | 3            | 3       | 5.6                   | 30                             |
| 4T x 12F | 48     | 12              | 6              | 4            | 2       | 5.6                   | 31                             |
| 5T x 12F | 60     | 12              | 6              | 5            | 1       | 5.6                   | 32                             |
| 6T x 12F | 72     | 12              | 6              | 6            | 0       | 5.6                   | 33                             |
| *        |        |                 |                |              |         |                       |                                |

\*Other fiber counts are also available on demand

**APPLICATION:**

|                                 |                      |                                                    |                               |
|---------------------------------|----------------------|----------------------------------------------------|-------------------------------|
| <b>Suggested Duct - Ø (min)</b> | mm                   | 16/12mm, 14/12mm, 12/10mm, 14/10mm, 12/8mm, 10/8mm |                               |
| <b>Temperature Range</b>        | Transport & Storage: | - 40 to + 70°C                                     | <b>Minimum bending radius</b> |
|                                 | Installation:        | - 5 to + 55°C                                      | Under maximum tension:        |
|                                 | Operation:           | - 30 to + 60°C                                     | Without tension:              |
|                                 |                      |                                                    | 20 x cable Ø                  |
|                                 |                      |                                                    | 10 x cable Ø                  |

**MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS** (according to IEC 60794-5 and EN 187000)

| Test                      | Test Standard     | Specified Value                  | Requirement*                                                     |
|---------------------------|-------------------|----------------------------------|------------------------------------------------------------------|
| Max. installation tension | IEC 60794-1-2-E1  | 750 N                            | $\Delta\alpha$ reversible, fiber strain $\leq 0.33\%$            |
| Max. operation tension    | IEC 60794-1-2-E1  | 250 N                            | no fiber strain, $\Delta\alpha \leq 0.05$ dB                     |
| Crush                     | IEC 60794-1-2-E3  | 1000 N / 100 mm, max. 15 min     | $\Delta\alpha$ reversible, no damage                             |
| Impact                    | IEC 60794-1-2-E4  | 10 Nm, 3 impacts, R= 300 mm      | $\Delta\alpha \leq 0.05$ dB after the test                       |
| Torsion                   | IEC 60794-1-2-E7  | 100N, +/- 180°, 10 cycles        | $\Delta\alpha \leq 0.05$ dB, no damage                           |
| Repeated bending          | IEC 60794-1-2-E6  | R=20x D, 100N, 35 cycles         | no damage                                                        |
| Cable bend                | IEC 60794-1-2-E11 | R=20x D, 4 turns, 3 cycles       | $\Delta\alpha \leq 0.05$ dB, no damage                           |
| Temperature cycling       | IEC 60794-1-2-F1  | -15°C to +60°C<br>-30°C to +70°C | $\Delta\alpha \leq 0.05$ dB/km<br>$\Delta\alpha \leq 0.10$ dB/km |
| Water penetration         | IEC 60794-1-2-F5B | sample=3m, water column=1m, 24h  | no water leakage                                                 |

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

|               |                 |        |
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**OPTICAL FIBER AND LOOSE TUBES COLOR IDENTIFICATION**

The colors of identifications see on **DSH\_Colors\_CODE\_XXXX**

**FIBER PARAMETERS**

The value of characteristic fibers parameters see on **DSH\_OFFP**

**MARKING**

The following printing (ink-jet) is applied at 1-meter intervals.

- Supplier: FIBRAIN
- Standard Code (product type, fiber count, fiber type,), other sales name, jacket type
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: METROJET MK-LX6 72F SM G652D 6T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is ± 1.0%. Occasional loss of printing and remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Cables can be supplied with a range of single mode or multimode fibers, alternative sheath materials (e.g. MDPE/LSZH) and customized printing.

**PACKAGING**

The cables will be shipped on disposable wooden or treated wooden drums. The inner and outer ends of the cable will be capped and made accessible for testing. A direction of rotation arrow is marked on the drum together with the identification information.

**DELIVERY LENGTH**

2000 – 8000 meters ± 5%, with an allowance of supplying a maximum of 5% of a total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of on Order Quantity shall be allowed.

**Important notice**

Buyer and/or user of this product has to make sure before using this product that it is suitable for the intended use. All questions of liability relating to this product are subject – in accordance with the prevailing – to the Term of Sale of the selling Fibrain subsidiary.

The information is believed to be correct at the time of issue. Fibrain reserves the right to change this specification without prior notice. This specification is not contractually valid unless specifically authorised by Fibrain. Buyer and/or user of this product has to make sure before using this product that it is suitable for the intended use. All questions of liability relating to this product are subject – in accordance with the prevailing – to the Terms of Sale of the selling Fibrain subsidiary.