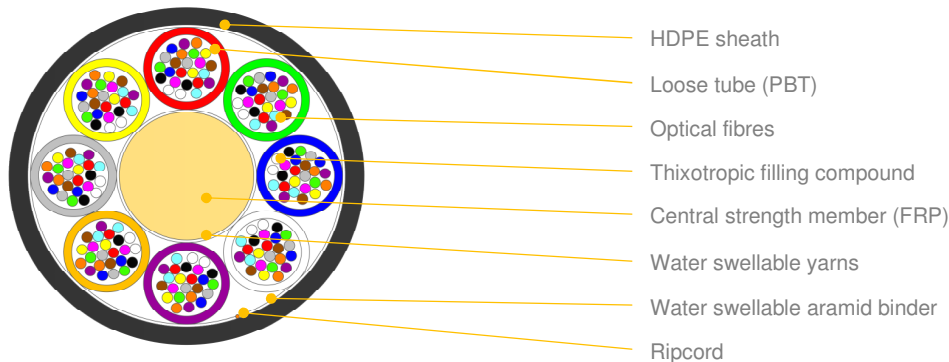


Type:	Blowing microcable MK-UX6	REV: 1.7
Issued:	24/01/2019	AM
Modified:	26/07/2021	AM

### Multi loose tube blowing microcable MK-UX6



\*schematic drawing, not to scale

#### DESIGN:

FRP strength and anti-buckling element  
 Water swollable yarns to prevent moisture ingress into the cable  
 SZ stranded cable core  
 Loose tubes (PBT Ø 1,2 mm or Ø 1,6 mm) with thixotropic filling compound and 200 µm optical fibres  
 Suitable filler type when applicable  
 Water-swollable aramid binder  
 Polyester ripcord  
 UV stabilized black HDPE sheath

Variant	Quantity [pcs]				Ø nominal (±3 %) [mm]	Nominal weight (±5 %) [kg/km]	Max allowed tension [N]	Max static tension [N]
	Fibres	Fibres per tube	Total elements	Active tubes				
1-8T x 12F	12-96	12	8	1-8	5,2	26	550	100
1-8T X 24F	24-192	24	8	1-8	6,6	45	1500	300

#### APPLICATION:

Temperature range	Transport & Storage:	- 40 to + 70 °C	Minimum Bending Radius		
	Installation:	- 15 to + 60 °C		Dynamic:	20 x cable Ø
	Operation:	- 20 to + 70 °C		Static:	15 x cable Ø

#### MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	<b>Sustained load:</b> as provided in table above	$\Delta\epsilon_r \leq 0.1\%$ (during test) $\Delta\alpha \leq 0.05\text{dB/km}$ @ 1550 nm (during test) No significant damage to fibre unit
		<b>Extended load:</b> as provided in table above	$\Delta\epsilon_r \leq 0.6\%$ (during test) $\Delta\alpha \leq 0.05\text{dB/km}$ @ 1550 nm (after test) No significant damage to fibre unit
Crush resistance	IEC60794-1-21 Method E3	<b>Load:</b> 700 N / 10 cm /5min	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550 nm (after test) No jacket cracking and fibre breakage
Impact resistance	IEC60794-1-21 Method E4	<b>Impact energy:</b> 2 J	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550 nm (after test) No jacket cracking and fibre breakage
Torsion	IEC60794-1-21 Method E7	<b>Cable length to be twisted:</b> 2 m <b>No. of cycles:</b> 10 <b>Twist angle:</b> $\pm 180^\circ$	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550 nm (after test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	<b>Mandrel radius:</b> 15 x OD / 4 turns / 3 cycles	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550 nm (after test) No jacket cracking and fibre breakage
Repeated bending	IEC60794-1-21 Method E6	<b>Sheave Radius:</b> 20 x OD	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550 nm (after test) No jacket cracking and fibre breakage
Water penetration	IEC 60794-1-22 Method F5B	<b>Water head:</b> 1 m <b>Sample length:</b> 3 m <b>Time:</b> 24 hrs	No water leakage

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Temperature Cycling	IEC 60794-1-22 Method F1	<b>1st cycle:</b> +23 °C → -20 °C(Ta1) → +60 °C(Tb1) → -40 °C(Ta2) → +70 °C(Tb2) <b>2nd cycle:</b> -20 °C(Ta1) → -40 °C(Ta2) → +60 °C(Tb1) → +70 °C(Tb2) → +23 °C <b>Time at temperature: 8h</b>	$\Delta\alpha \leq 0.1$ dB/km for Ta1 and Tb1 @ 1550 nm $\Delta\alpha$ reversible for Ta2 and Tb2 @ 1550 nm
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**OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION**

For optical fibres and loose tube identification information please see **DSH\_Colors\_CODE\_XXXX** document.

**FIBRE PARAMETERS**

For selected post-production optical fibres parameters please see **DSH\_OFFP** document.

**MARKING**

The following print (laser or other suitable method) 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 MK-UX6 192F SM G657A1 200um 8T24F "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 – 4000 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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