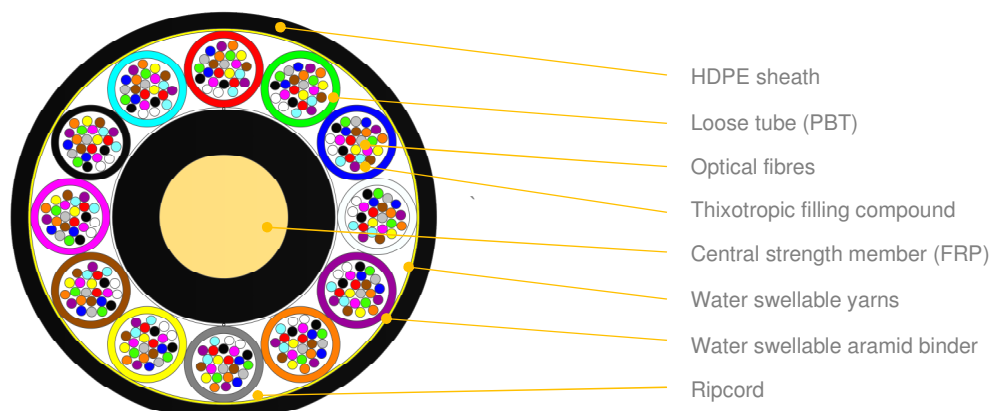


Type:	Blowing microcable MK-UX8	REV: 1.9
Issued:	25/03/2020	AM
Modified:	26/07/2021	AM

Multi loose tube blowing microcable MK-UX8



*schematic drawing, not to scale

DESIGN:

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

Variant	Quantity [pcs]				Ø nominal (±3 %)	Nominal weight (±5 %)	Max allowed tension	Max static tension
	Fibres	Fibres per tube	Total elements	Active tubes	[mm]	[kg/km]	[N]	[N]
1-12T x 12F	12-144	12	12	1-12	6,8	42	850	150
16-24T x 12F (two layers)	192-288	12	24	16-24	7,9	61	1800	400

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

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	Sustained load: as provided in table above	$\Delta\epsilon_t \leq 0.1\%$ (during test) $\Delta\alpha \leq 0.05$ dB/km @ 1550 nm (during test) No significant damage to fibre unit
		Extended load: as provided in table above	$\Delta\epsilon_t \leq 0.6\%$ (during test) $\Delta\alpha \leq 0.05$ dB/km @ 1550 nm (after test) No significant damage to fibre unit
Crush resistance	IEC60794-1-21 Method E3	Load: 900 N / 10 cm / 5min	$\Delta\alpha \leq 0.1$ dB @ 1550 nm (after test) No jacket cracking and fibre breakage
Impact resistance	IEC60794-1-21 Method E4	Impact energy: 2 J	$\Delta\alpha \leq 0.1$ dB @ 1550 nm (after test) No jacket cracking and fibre breakage
Torsion	IEC60794-1-21 Method E7	Cable length to be twisted: 2 m No. of cycles: 10 Twist angle: $\pm 180^\circ$	$\Delta\alpha \leq 0.1$ dB @ 1550 nm (after test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	Mandrel radius: 15 x OD / 4 turns / 3 cycles	$\Delta\alpha \leq 0.1$ dB @ 1550 nm (after test) No jacket cracking and fibre breakage
Repeated bending	IEC60794-1-21 Method E6	Sheave Radius: 20 x OD	$\Delta\alpha \leq 0.1$ dB @ 1550 nm (after test) No jacket cracking and fibre breakage

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Water penetration	IEC 60794-1-22 Method F5B	Water head: 1 m Sample length: 3 m Time: 24 hrs	No water leakage
Temperature Cycling	IEC 60794-1-22 Method F1	1st cycle: +23 °C → -20 °C(Ta1) → +60 °C(Tb1) → -40 °C(Ta2) → +70 °C(Tb2) 2nd cycle: -20 °C(Ta1) → -40 °C(Ta2) → +60 °C(Tb1) → +70 °C(Tb2) → +23 °C Time at temperature: 8h	$\Delta\alpha \leq 0.1$ dB/km for Ta1 and Tb1 @ 1550 nm $\Delta\alpha$ reversible for Ta2 and Tb2 @ 1550 nm

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_OFP** 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-UX8 144F SM G657A1 200um 12T12F "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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