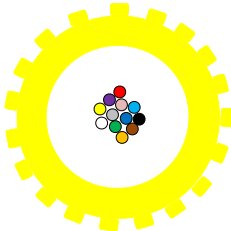


1. Application / Construction

Identification	EPFU-2/4/6/8/12 G.657A2-PE		
Application	Mini cable for blowing into microducts.		
Cross Section (not to scale)	<p style="text-align: center;">2/4/6/8/12 fibers</p> 		
Recommended for microduct dimension (O/I-Ø in mm)	5/3.5 or 3/2.1		
Configuration	<ul style="list-style-type: none"> - Colored optical fibers - 1st UV curable resin - Low friction outer sheath (HDPE, yellow) - Trough 		
Temperature Range	Storage and transport -20 to +70°C	Installation -10 to +50°C	Operation -20 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-5		
ZTT Specification	21-XJ00380-A		
Customer Reference	Common standard		

2. Dimensions

Number of fibers	/	2/4	6/8	12
Outer sheath thickness	mm	0.15±0.1	0.15±0.1	0.15±0.05
Outer diameter (±0.1)	mm	1.1	1.35	1.6
Weight/km	kg	1.0	1.6	2.2

Note: sizes and values without tolerances are nominal values

3. Mechanical Properties

Max. tensile load	Long term: 0.5G; Short term: 1G
Crush resistance / 10 cm	Long term: 30N; Short term: 100N
Bending radius (installation)	20x cable Ø
Bending radius (operation)	10x cable Ø

See Point 6: Test Methods

4. Marking

Fiber Colors	1	2	3	4	5	6	7	8	9	10	11	12
	blue	orange	green	brown	slate	white	red	black	yellow	violet	rose	aqua

Outer Sheath: yellow, ink jet, marking in 1 meter intervals as follows (for example):

ZTT OPTICAL CABLE EPFU-2 G.657A2-PE <fiber counts> <batch ID> <meter marking >
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5. Optical Fiber

Standard	ITU-T G.657A2 UBIF [®] R7.5		
Optical	Fibre attenuation .. cabled	@ 1310 nm ≤0.36 dB/km	@ 1550 nm ≤0.22 dB/km
	Mode field diameter (MFD)	(8.6~9.2) ± 0.4 μm @1310nm	
	Zero dispersion wavelength	1300~1324 nm	
	Zero dispersion slope	≤0.092 ps/nm ² ·km	
	Polarization mode dispersion (PMD)	≤0.2 ps/√km	
	Cable cut-off wavelength	≤1260 nm	
	Macro bending loss .. 10 turns Ø30 mm .. 1 turn Ø20 mm .. 1 turn Ø15 mm	@1550 nm ≤0.03 dB ≤0.10 dB ≤0.50 dB	@1625 nm ≤0.10 dB ≤0.20 dB ≤1.00 dB
Geometric	Outer diameter	250 ± 15 μm	
	Cladding diameter	125 ± 0.7 μm	
	Core/clad concentricity error	≤0.5 μm	
	Cladding non-circularity	≤ 1.0 %	
Mechanical	Proof stress	≥ 0.69 Gpa	

6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile strength: see Point 3 Sample length: ≥ 50 m, Duration: 1 min	- Δα reversible - No damage
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of test: 3	- Δα reversible - No damage
Impact IEC 60794-1-2 E4	Impact energy: 1 J R = 300 mm, number of places/tests: 3	- Δα reversible - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 25 cycles	- Δα reversible - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m ± 180°, 10 cycles	- Δα reversible - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 4 bends, 3 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-20°C → +70°C 4 hours at each step, 2 cycles	- Δα ≤ 0.15dB/km and reversible - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m, duration: 24 h Water column height: 1 m	- No water leakage

All optical measurements at 1550 nm

7. Logistics

Cable type	Length Tolerance	2km -1% / +3%	4km -1% / +3%	
EPFU-2/4/6/8 G.657A2-PE	Drum Type Dimensions Weight (kg)	/	Pan 52*30*19 (10)	
EPFU-12 G.657A2-PE		Pan 52*30*19 (15)	/	

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps

Version	Date	Prepared	Reviewed	Approved	Remark
A	Dec.11,2020	Dendi	Erica	Xue Zhaojian	/