



The Singlemode optical fiber with low water peak E3 (G.657.A2) hybrid with advanced characteristics is a fiber with a reduced sensitivity to bends that has the ability to function over the entire spectrum of singlemode fibers optical transmission (1260 nm - 1625 nm). It completely complies with the requirements of ITU-T G.657.A2 and G.652.D. Double acrylate coating of fiber provides its high strength and a long service life. The fiber works in a full spectral range of different

access networks, including FTTH, and can be applied in long distance communications. The fiber bending resistance provides an advantage in application in urban networks and guarantees application in the L-band (1565 nm-1625 nm). The fibers are fully compliant with standard singlemode fibers, such as E3 (G.652.D) manufactured by JSC "Optic Fiber Systems".

Dimensional Specifications

| | |
|---|----------------|
| Core-Clad Concentricity, μm | $\leq 0,5$ |
| Cladding Diameter, μm | $125\pm 0,65$ |
| Cladding Non-Circularity, % | $\leq 0,7$ |
| Coating Diameter, μm | $243,5\pm 3,0$ |
| Fiber Curl, m radius of curvature | ≥ 4 |
| Coating-Cladding Concentricity, μm | ≤ 12 |
| Length ¹ , km | 25,2 / 50,4 |

¹Supplies of other lengths are possible

Optical Specifications

Maximum Attenuation², dB/km at wavelengths

| | |
|---------|-------------|
| 1310 nm | $\leq 0,35$ |
| 1383 nm | $\leq 0,35$ |
| 1550 nm | $\leq 0,20$ |
| 1625 nm | $\leq 0,23$ |

²Other attenuation values are possible on request

Attenuation vs. wavelength³

| | |
|------------------------------------|-------------|
| 1285-1330 nm at wavelength 1310 nm | $\leq 0,03$ |
| 1525-1575 nm at wavelength 1550 nm | $\leq 0,02$ |
| Point discontinuity, dB | |
| 1310 nm | $\leq 0,05$ |
| 1550 nm | $\leq 0,05$ |

Mode Field Diameter, μm

| | |
|---------|--------------|
| 1310 nm | $8,7\pm 0,5$ |
| 1550 nm | $9,7\pm 0,6$ |

Cable Cutoff wavelength, (λ_{cc}), nm

| | |
|--|-------------|
| | ≤ 1260 |
|--|-------------|

Dispersion, ps/nm·km

| | |
|---------|-----------|
| 1550 nm | ≤ 18 |
| 1625 nm | ≤ 23 |

Zero-dispersion wavelength (λ_0), nm

| | |
|--|-----------|
| | 1300-1324 |
|--|-----------|

Zero dispersion slope, ps/nm²·km

| | |
|--|--------------|
| | $\leq 0,092$ |
|--|--------------|

Polarization Mode Dispersion (PMD), ps/√km

| | |
|--------------------------------------|------------|
| Maximum Individual Fiber PMD, ps/√km | $\leq 0,2$ |
|--------------------------------------|------------|

| | |
|-------------------------------|------------|
| PMD Link Design Value, ps/√km | $\leq 0,1$ |
|-------------------------------|------------|

Macrobend Loss

| Winding Conditions | Wavelength, nm | Induced Attenuation, (db) |
|---------------------------------------|----------------|---------------------------|
| 1 turn around a mandrel with R 7,5 mm | 1550 | 0,5 |
| | 1625 | 1,0 |
| 1 turn around a mandrel with R 10 mm | 1550 | 0,1 |
| | 1625 | 0,2 |
| 10 turn around a mandrel with R 15 mm | 1550 | 0,03 |
| | 1625 | 0,1 |

Mechanical Specifications

| | | |
|--|----------|-----------------------|
| ProofTest, (Other tension force on request) | ГПа % | $\geq 0,69$ $>1\%$ |
|--|----------|-----------------------|

Coating Strip Force, N

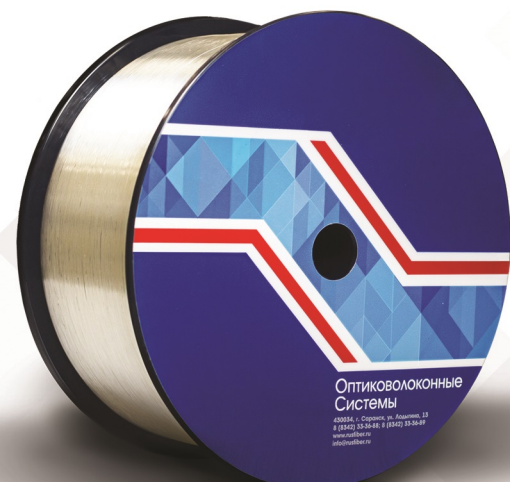
| | |
|------------------------------|-----------|
| Peak force | 1 – 8,9 |
| Typical average force | 1 – 5 |
| Dynamic Stress Corrosion, Nd | ≥ 20 |

Environmental Characteristics

Induced Attenuation 1310 nm, 1550 nm & 1625 nm,

| | |
|--------------------------------------|-------------|
| -60°C ~ +85°C Temperature dependence | $\leq 0,05$ |
| +23°C Water Immersion | $\leq 0,05$ |
| +85°C Heat Aging | $\leq 0,05$ |
| +85°C/85%Damp Heat | $\leq 0,05$ |

³Attenuation coefficients in a wavelength range do not differ from attenuation coefficients at references more than indicated values



This Specification offers promotional content. Specific characteristics of optical fiber to be determined in accordance with a contract and TU.

430006, 13, Lodygina St., Saransk

Tel: 8 (8342) 33-36-88, 33-36-89

E-mail: info@rusfiber.ru, sales@rusfiber.ru

www.rusfiber.ru