



Single-mode optical fiber E3(G657A1/G652D)\_200 is made of preforms produced by vapor axial deposition (VAD) method. The fiber with a quartz core alloyed with Germanium and quartz cladding complies with the recommendations ITU-T G.652d. and G657A1. The product is manufactured in the Russian Federation, fully meets the requirements of the Russian Government Decree No. 719 dated July 17, 2015, the Russian Government Decree No. 925 dated September 16, 2016. When used in a domestically produced cable, it allows to

receive a 30% preference for purchases by Federal Law No. 223 comparing with imported analogs. Fiber E3 (G657A1 / G652D) \_200 is intended for use in cables with reduced diameter. The fiber meets all requirements of category G.652.D with bending characteristics according to ITU-T G.657.A1. The fiber works in a full spectral range of different access networks including FTTH, can be applied in long distance communications.

### Dimensional Specifications

Core-Clad Concentricity, $\mu\text{m}$	$\leq 0,5$
Cladding Diameter, $\mu\text{m}$	$125\pm 0,7$
Cladding Non-Circularity, %	$\leq 0,7$
Coating Diameter, $\mu\text{m}$	$200\pm 5,0$
Fiber Curl, m radius of curvature	$\geq 4$
Coating-Cladding Concentricity, $\mu\text{m}$	$\leq 10$
Length*, km	25,2 / 50,4

\*Supplies of other lengths are possible

### Optical Specifications

Maximum Attenuation\*, dB/km at wavelengths

1310 nm	$\leq 0,32$
1383 nm	$\leq 0,32$
1550 nm	$\leq 0,18$
1625 nm	$\leq 0,20$

Attenuation vs. wavelength

1285-1330 nm at wavelength 1310 nm	$\leq 0,03$
1525-1575 nm at wavelength 1550 nm	$\leq 0,02$

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

Point discontinuity, dB

1310 nm	$\leq 0,05$
1550 nm	$\leq 0,05$

Mode Field Diameter,  $\mu\text{m}$

1310 nm	$9,2\pm 0,4$
1550 nm	$10,4\pm 0,5$

Cable Cutoff wavelength, ( $\lambda_{cc}$ ), nm

	$\leq 1260$
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Dispersion, ps/nm·km

1550 nm	$\leq 18$
1625 nm	$\leq 22$

Zero-dispersion wavelength ( $\lambda_0$ ), nm

	1300-1324
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Zero dispersion slope, ps/nm<sup>2</sup>·km

	$\leq 0,092$
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Polarization Mode Dispersion (PMD), ps/ $\sqrt{\text{km}}$

Maximum Individual Fiber PMD	$\leq 0,2$
PMD Link Design Value	$\leq 0,2$

### Performance Specifications

Effective Group Index of Refraction

1310 nm/1383 nm	1,466
1550 nm	1,467
1625 nm	1,470

### Macrobend Loss

Winding Conditions	Wavelength, nm	Induced Attenuation,
1 turn around a mandrel of 10mm radius	1550	0,75
	1625	1,5
10 turns around a mandrel 15mm radius 15MM	1550	0,25
	1625	1,0

### Mechanical Specifications

Proof Test, (Other tension force on request)	GPa %	$\geq 0,69$ $>1\%$
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Coating Strip Force, N

Peak force	1 – 8,9
Typical average force	1 – 5

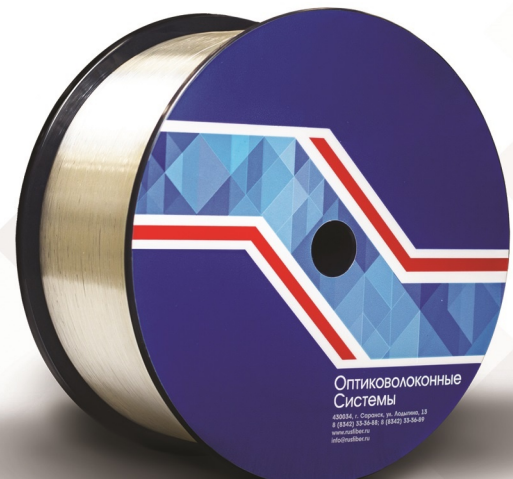
Dynamic Stress Corrosion Susceptibility Parameter (Nd)

	$\geq 20$
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### Environmental Characteristics

Induced Attenuation 1310 nm, 1550 nm & 1625 nm, dB/km

-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	$\leq 0,05$



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