

# CS-8G-RR-I/O-200

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Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted 200um Singlemode Rollable Ribbon Fiber (ITU-T G.657.A2, B2)

## Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

## General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.7 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 0.7 %                                  |
| <b>Coating Diameter (Colored)</b>                    | 200 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 190 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±10 µm                                 |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±5 µm                                  |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core/Clad Offset, maximum</b>                     | 0.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

## Dimensions

|                            |                 |
|----------------------------|-----------------|
| <b>Fiber Curl, minimum</b> | 4 m   13.123 ft |
|----------------------------|-----------------|

## Mechanical Specifications

|  |   |
|--|---|
| <b>Macrobending, 15 mm Ø mandrel, 1 turn</b>   | 0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>   | 0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b> | 0.03 dB @ 1,550 nm   0.10 dB @ 1,625 nm |
| <b>Coating Strip Force, maximum</b>            | 8.9 N   2.001 lbf                       |
| <b>Coating Strip Force, minimum</b>            | 1.3 N   0.292 lbf                       |
| <b>Dynamic Fatigue Parameter, minimum</b>      | 20                                      |

## Optical Specifications

|  |         |
|--|---------|
| <b>Cabled Cutoff Wavelength, maximum</b> | 1260 nm |
| <b>Point Defects, maximum</b>            | 0.1 dB  |

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|  |                     |
|--|---------------------|
| <b>Zero Dispersion Slope, maximum</b>      | 0.092 ps/[km-nm-nm] |
| <b>Zero Dispersion Wavelength, maximum</b> | 1324 nm             |
| <b>Zero Dispersion Wavelength, minimum</b> | 1302 nm             |

## Optical Specifications, Wavelength Specific

|  |  |
|--|--|
| <b>Attenuation, maximum</b>                                    | 0.3 dB/km @ 1,550 nm   0.4 dB/km @ 1,310 nm                                |
| <b>Dispersion, maximum</b>                                     | 18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| <b>Index of Refraction</b>                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm                     |
| <b>Mode Field Diameter</b>                                     | 8.6 $\mu\text{m}$ @ 1,310 nm   9.8 $\mu\text{m}$ @ 1,550 nm                |
| <b>Mode Field Diameter Tolerance</b>                           | $\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm          |
| <b>Polarization Mode Dispersion Link Design Value, maximum</b> | 0.06 ps/sqrt(km)   |
| <b>Standards Compliance</b>                                    | ITU-T G.657.A2   ITU-T G.657.B2  |

## Environmental Specifications

|  |                    |
|--|--------------------|
| <b>Heat Aging, maximum</b>                   | 0.05 dB/km @ 85 °C |
| <b>Temperature Dependence, maximum</b>       | 0.05 dB/km         |
| <b>Temperature Humidity Cycling, maximum</b> | 0.05 dB/km         |
| <b>Water Immersion, maximum</b>              | 0.05 dB/km @ 23 °C |

## \* Footnotes

|  |   |
|--|---|
| <b>Temperature Dependence, maximum</b>       | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)                                   |
| <b>Temperature Humidity Cycling, maximum</b> | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |