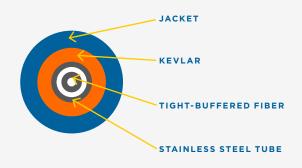
# TECHNICAL DATA SHEET







# **FEATURES AND BENEFITS**

- · increased bend radius good for pipes with multiple bends.
- · Armored sheathing allows for increased bend radius
- · High crush resistance
- · Flame retardant, meets industry standards
- · Soft, flexible yet extremely durable
- · Easy to splice
- · Performs well over long lengths

#### **NUMERICAL APERTURE**

• 0.200 ± 0.015



# RoundTemp — Featuring Corning® ClearCurve® Multimode Optical Fiber

# **DESCRIPTION**

VeriCure's RoundTemp cable features Corning® ClearCurve® ultra-bendable laser-optimized™ multimode optical fiber to deliver the best macrobending performance in the industry while maintaining compatibility with current optical fibers, equipment, practices and procedures. RoundTemp cable is also designed to withstand tight bends and challenging cabling routes with substantially less signal loss than conventional multimode fiber. This allows installers to use multimode optical fiber in a package that is easier to handle and install.

VeriCure RoundTemp cable is armored for maximum strength and durability without sacrificing flexibility or size. It is crush and rodent resistant without being bulky, heavy or messy. This means that it can be used in hazardous areas where more rugged cable is required.

RoundTemp cable is 100% optically inspected and tested for insertion loss before you receive them. A pull-proof jacket design surrounds the Multimode, OM3, 50/125, 10Gb fiber which is immune to electrical interference.

## APPLICATION

Sewer renovation for standard diameter CIPP liner installations.

## **PACKAGING**

Available in spools, broad range of lengths:

• 350', 500', 600', 700' and 800'

# **COATING GEOMETRY**

- Coating Diameter: 242 ± 5 μm
- Coating-Cladding Concentricity: < 12 μm

### **GLASS GEOMETRY**

- Core Diameter: 50.0 ± 2.5 μm
- Cladding Diameter: 125.0 ± 1.0 μm
- Core-Clad Concentricity: ≤ 1.5 µm
- Cladding Non-Circularity: ≤ 1.0%
- Core Non-Circularity: ≤ 5%



#### **MACROBEND LOSS**

MANDREL RADIUS (mm)	NUMBER OF TURNS	INDUCED ATTE 850 nm	NUATION (dB) 1300 nm
37.5	100	≤ 0.05	≤ 0.15
15	2	≤ 0.1	≤ 0.3
7.5	2	≤ 0.2	≤ 0.5

# **ATTENUATION**

WAVELENGTH MAXIMUM VALUE (dB/km)

850 ≤ 2.3 1300 ≤ 0.6

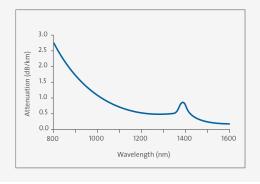
No point discontinuity greater than 0.2 dB. Attenuation at 1380 nm does not exceed the attenuation at 1300 nm by more than 3.0 dB/km.

# **PROOF TEST**

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.7 GN/m2)\*.

\* Higher proof test levels available.

# SPECTRAL ATTENUATION (TYPICAL FIBER)



#### BEND PERFORMANCE AND COMPATIBILITY

- · Industry leading macrobending performance below 10 mm radius
- · High performance minEMBc certified bandwidth to support 850 nm transmission at data rates up to 100 Gb/s
- · Higher data aggregation in the backbone, riser and highspeed parallel interconnects (HSPIs)
- · Fully backwards-compatible and ideally suited to current and future broad range of laser-based protocols and applications
- · Superior measurement technology and manufacturing control
- Industry-leading CPC® coatings for superior microbend and environmental performance

# PERFORMANCE CHARACTERIZATIONS

- Refractive Index Difference: 1%
- Effective Group Index of Refraction (N<sub>eff</sub>): 850 nm: 1.480 | 1300 nm: 1.479
- N<sub>eff</sub> was empirically derived to the third decimal place using a specific commercially available OTDR
- Fatigue Resistance Parameter (n<sub>d</sub>): 20
- Coating Strip Force: Dry: 0.6 lbs (2.7N)

Wet: 14 days in 73.4°F (23°C) water soak: 0.6 lbs (2.7N)

- Chromatic Dispersion: Zero Dispersion Wavelength ( $\lambda_0$ ): 1295 nm  $\leq \lambda_0 \leq$  1315 nm
- Zero Dispersion Slope (S<sub>o</sub>): ≤ 0.101 ps/(nm<sup>2</sup>•km )

# **CABLE PARAMETERS**

CABLE DIAMETER	STAINLESS STEEL TUBE	TIGHT BUFFERED FIBER
(Фа) MM	DIAMETER (Фb) MM	DIAMETER MM
Ф3.0±0.1	Ф1.4±0.05	

CABLE DIAMETER	CABLE WEIGHT	TENSILE N	TENSILE N	CRUSH
MM	KG/KM	SHORT TIME	LONG TIME	N/100 MM
Ф3.0±0.1	11.0	450	200	

#### **ENVIRONMENTAL**

ENVIRONMENTAL TEST	TEST CONDITION	INDUCED ATTENUATION 850 NM & 1300 NM (DB/KM)
Temperature Dependence	-76°F (-60°C) to 185°F (+85°C)	≤ 0.10
Temperature Humidity Cycling	14°F (-10°C) to 185°F (+85°C) and 4% to 98% RH	≤ 0.10
Water Immersion	73.4°F ± 2°F (23°C ± 2°C)	≤ 0.20
Heat Aging	185°F ± 2°F (85°C ± 2°C)	≤ 0.20
Damp Heat	185°F (85°C) at 85% RH	≤ 0.20

Operating Temperature Range: -60°C to + 85°C