



Verrillon® 175° Coating - Carbon/Silicone/Mid-Temp Acrylate Coating (CSMTA)

Verrillon’s traditional fiber coating offering includes materials rated to 150°C (MTDA), 200°C (SPFA) and 300°C (Polyimide). For environments where temperatures are between 150°C and 200°C, Verrillon has introduced its new Carbon/Silicone/Mid-Temp Acrylate coating (CSMTA), designed to address such mid-temperature range applications. This coating combination has been fully qualified for use at 175°C in both long-term exposure and extensive cycling between -40°C and +175°C. In addition to its excellent temperature handling, the 175°C coating exhibits exceptional strippability with traditional mechanical tools due to the unique properties of its primary coating.

Features

- Easy to strip with mechanical strippers – strips easier than standard acrylate coating
- Minimal to no residue after stripping – no impact on fusion splicing
- Colored versions available
- Does not have a negative impact on bend loss
- Available with carbon coating for hydrogen and chemical damage prevention
- Coating combination available in all Verrillon® waveguides and glass compositions

Applications

- Distributed Temperature Sensing (DTS)
- Distributed Acoustic Sensing (DAS)
- Distributed Strain Sensing (DSS)
- Suitable for application temperatures as high as 175°C

Specifications

PART NO.	MMF-50-3-CSMTA-3-175
Description	Mid-High Temperature range coating combination rated to 175°C and available with all multimode and single-mode products offered by Verrillon. These specifications are for VHM2000 50/125 Graded-Index fiber with CSMTA coating but the coating is available with all Verrillon fiber Series
PARAMETER	
Material	
Core	Silica-based
Cladding	Pure Silica
Coating	Carbon / Silicone / Mid-Temp Acrylate (CSMTA)
Geometry	
Core Diameter (µm)	50 ± 2.5
Clad Diameter (µm)	125 ± 2
Core Non-Circularity (%)	≤ 5
Clad Non-Circularity (%)	≤ 1
Core/Clad Offset (µm)	≤ 1.5
Coat Diameter (µm)	245 ± 20
Optical	
NA (nominal)	0.2
Attenuation (dB/km) @ 850 nm	≤ 3.0
Attenuation (dB/km) @ 1300 nm	≤ 1.2
Bandwidth (MHz*km) @ 850 nm	≥ 300
Bandwidth (MHz*km) @ 1300 nm	≥ 300
Mechanical	
Proof test (kpsi)	≥ 100
Operating Temperature (°C)	-40 to +175

Coating Combination Available with all Verrillon's SM and MM Waveguides and Glass Compositions