



Verrillon® VHS100-HiNA Series

Verrillon® VHS100-HiNA Series is a family of small form factor (SFF), bend-insensitive, reduced cladding single-mode fibers designed for harsh environment small packaging applications where tight bend and hydrogen resistance are key requirements. These fibers have an 80 µm cladding diameter suitable for extremely small fiber coils used in interferometric sensing applications. In addition to the small size, this fiber is coated with Verrillon’s renowned hermetic carbon coating, which makes it extremely resistant to static fatigue for longer lifetimes. The VHS100-HiNA fiber family is available in high proof-test levels ranging from 100 to 300 kpsi.

Features

- Reduced cladding for small form factor
- High NA allows for extremely low bend-loss
- Suitable for extremely small coils and tight bends
- High static fatigue resistance provided by the hermetic carbon layer
- Proof-test levels from 100 to 300 kpsi available

Specifications

PART NO.	SMF-39-CA-80-1
Description	Small Form Factor Bend-Insensitive, reduced cladding single-mode fiber with high numerical aperture and hermetic coating for static fatigue resistance
PARAMETER	
Material	
Core	Silica-based
Cladding	Pure Silica
Coating	Carbon-Acrylate
Geometry	
Core Diameter (µm)	-
Clad Diameter (µm)	80 ± 1
Core/Clad Offset (µm)	≤ 0.3
Coat Diameter (µm)	165 ± 5
Optical	
NA (nominal)	0.21
Attenuation @ 1550 nm (dB/km)	≤ 0.70
Cutoff Wavelength (nm)	1425 ± 75
Mode Field Diameter @ 1550 nm (dB/km)	5.9 ± 0.4
Mechanical	
Proof-test (kpsi)	≥ 250
Operating Temperature (°C)	-40 to +85