中国华能
CHINA HUANENG

Huaneng Taian Optic-Electric Technology Co.,Ltd Product Introduction

Product Name: High Temperature Acrylate Coated Single-Mode Fiber

1、Product Description:

High Temperature Acrylate coated Single Mode Fiber provides the ability to operate at 150℃ for long term; 200℃ for short term.

HTA-SM is fully compatible with normal G.652D; and it is easy handling and stripping.

Fiber samples were tested at high temperature 150℃ for more than 3000 hrs.

Strength and Fatigue performance are guaranteed over high temperature application..

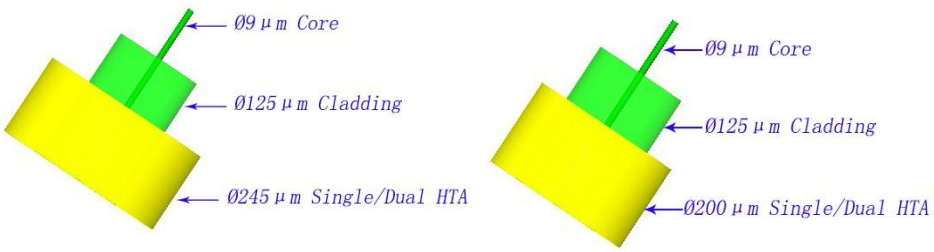
2、Product Features:

(1) Special acrylate coating;

(2) High operating Temperature; fully qualified at 150℃

(3) Easy stripping

(4) 200/245μm OD and Single/Dual layer structures are supported.



3、 Product Applications:

(1) Aerospace and military.

(2) Towed Cable.

(3) Fiber optic sensors.

(4) Oil and Gas; Down-hole.




4、Product Standards

Optical Performance			
Performance	Conditions	Data	Units
Attenuation	1310 nm	≤0.4	[dB/km]
	1550 nm	≤0.25	[dB/km]
Cut-off wavelength	Cable cut-off wavelength	≤1260	[nm]
	Fiber cut-off wavelength	1150-1330	[nm]
Mode-field diameter	1310 nm	9.2±0.4	[μm]
	1550 nm	10.4±0.8	[μm]
Geometrical Performance			
Cladding diameter		125.0±1.0	[μm]
Cladding non-circularity		≤1.0	[%]
Coating diameter	Single/Dual layer	200/245±5	[μm]
Secondary Coating eccentricity		≤12.0	[μm]
Core/Cladding eccentricity		≤0.6	[μm]
Fiber curl radius		≥4	[m]
Environmental Behavior			
Long term operation temperature	≥-60℃，≤150℃		
Short term operation temperature	≤200℃		
Water immersion dependence induced	23℃， 30 days	≤0.05	[dB/km]
Damp heat dependence induced attenuation	85℃，85% relative humidity, 30 days	≤0.05	[dB/km]

Dry heat aging induced attenuation	150℃，150 days	≤0.05	[dB/km]
Mechanical Behavior and Macro-bending Attenuation			
Proof test	Off-line	≥8.8	[N]
		≥1.0	[%]
		≥100	[kpsi]
Coating strip force	Typical average value	3	[N]
Tensile strength	Weibull probability 50%	≥4000	Mpa
	Weibull probability 15%	≥3050	Mpa
Dynamic fatigue parameter		≥20	