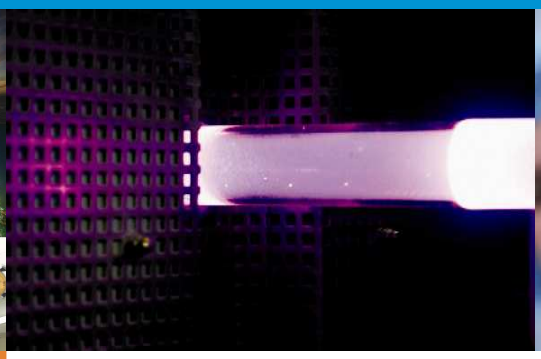
DrakaElite™ High Temperature Acrylate BendBright-Elite

Ultra bend insensitive SMF – Guaranteed for very low radius and high temperatures (up to 150℃)



Specialty Fiber

Issue date: 11/10
Supersedes: ../..

Product Type: G.657.B3, G.657.A2, G.652.D (2009 editions)

Coating Type: High temperature resistant acrylate

Since 2002, Draka's BendBright fibers family has set the standard of single-mode fibers for applications particularly demanding in terms of bending resistance, notably Access and FTTX telecom networks. Based on the Draka's proprietary manufacturing technologies and the Draka's patented trench-assisted design BendBright-XS offers full backward compatibility while meeting or exceeding the newest standards for telecom applications.

BendBright-Elite further extends these technologies to enhance the bending performance at very low radii at all wavelengths. With bend losses less than 0.15 dB for 1 turn at 5 mm at 1550 nm, Draka's BendBright-Elite offers unmatched value to customers that need to reduce the size of their components. Thanks to its high proof test stress level and its extreme insensitivity to optical bending loss, Draka's BendBright-Elite is able to endure repeated very tight bending. In addition the high temperature acrylate option offer an effective protection of the fiber during installation and operation for temperatures up to 150℃.

While offering unparalleled performance, Draka's BendBright-Elite is still based on conventional technology. It is an all solid silica fibers, without voids or other hole structures. It can be easily fusion spliced by any commercial splicer and requires no specific connectorization procedure. Because it's manufactured using Draka's Plasma Chemical Vapor Deposition process, BendBright-Elite has perfect control of all its characteristics both along the length of the fiber and in any radial direction.

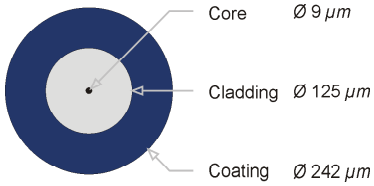
For components and sub-components industry addressing

- Sensors
- Aeronautics and Transport
- Military/Defense/Aerospace
- Marine, Oil and Gas

VALUE INNOVATION

Value Innovation is a way of looking at the world. How we can help our customers do more, make more, save more, achieve more.

Features	Benefits
High temperature resistant Acrylate coating	• Supports application in environments with both constant high temperature (up to 150℃) and fluctuating temperature
Excellent macro-bend performance at very low radii (down to 5 mm)	• Allows miniaturization of optical components • Permits high power in compact components
Low macro-bending loss and high proof test stress (200 kpsi)	• Very low failure in time rate
Solid silica structure	• No special connectorization procedures • No special mechanical splice procedures • Easy to fusion splice with any commercial machine



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Optical Specifications

Attenuation

Attenuation 1310 nm – 1625 nm*	≤ 0.40 dB/km
Attenuation at 1550 nm	≤ 0.25 dB/km

** Including H2-aging according to IEC 60793-2-50, type B.1.3*

Attenuation with Bending

Number of Turns	Mandrel Radius (mm)	Wavelength (nm)	Induced Attenuation (dB)
1	10	1550	≤ 0.03
1	10	1625	≤ 0.1
1	7.5	1550	≤ 0.08
1	7.5	1625	≤ 0.25
1	5.0	1550	≤ 0.15
1	5.0	1625	≤ 0.45

Cutoff Wavelength

Cable Cutoff wavelength (λccf)	≤ 1260 nm

Mode Field Diameter

Wavelength (nm)	MFD (µm)
1310	8.8 ± 0.4
1550	9.8 ± 0.5

Geometrical Specifications

Core/Cladding Concentricity Error	≤ 0.7 µm
Cladding Diameter	125.0 ± 1.0 µm
Cladding Non-Circularity	≤ 1.0 %

Coating Material (High Temp Resistant Acrylate Coating)

Coating Diameter	242 ± 7 µm

Length Standard Lengths up to 8.8 km

Mechanical Specifications

Proof test[1]	Off Line	≥ 2.0 [%] ≥ 200 kpsi ≥ 1.38 GPa

Dynamic Stress Corrosion

Susceptibility Parameter	Typical	≥ 20

Coating Performance

Coating Strip Force	Typical Average Force	2.7 N

Environmental Specifications

Operating Temperature	≥ -60 to ≤ +150 ℃
Long Term Operating Temperature	≤ +150 ℃

Temperature Dependence (1310 nm, 1550 nm)

Cycling Induced Attenuation (-60℃ to +150℃)	≤ 0.05 dB/km

Temperature and Humidity (1310 nm, 1550 nm)

Induced Attenuation (85℃, 85% R.H, 30 days)	≤ 0.05 dB/km

Heat Dependence (1310 nm, 1550 nm)

Induced Attenuation (150℃, 3000h)	≤ 0.05 dB/km

How can we be of service to you?

Value Innovation is a way of looking at the world. How can we help our customers do more, make more, save more, achieve more?
Take DrakaElite™. Based on our proprietary manufacturing process and our control of all technological building blocks, we offer an extensive portfolio of specialized optical fibers that have been designed, developed, manufactured and tested for every environment. Whether you want to guide, amplify, transmit, process, control or sense light, Draka has the fiber you need, whatever your environment. And if for some reason we don't have exactly what you need, well, we'll just make it.
That's Value Innovation in action.

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