



Draka

Specialty Fiber

DrakaElite™ Low OH Step-Index Multimode Optical Fiber

Improved performances for multi-purposes applications



Issue date: 03/12
Supersedes: 02/12

Fiber

DrakaElite™ Step-Index Multimode Fibers are part of the growing family for applications from telecom to industrial.

Step-Index Multimode fibers are available, upon request, in different core diameters and with various numerical apertures.

Coating

Draka's Step-Index Multimode Fibers are coated with a dual layer UV curable Acrylate, type DLPC9. The coating is designed for tight-buffer cable applications, demonstrating a high resistance to micro-bending. The coating offers an excellent stable coating strip force over a wide range of environmental conditions and coating stripping leaves no residues on the bare glass fiber. In tight buffer applications the entire coating construction (tight buffer and primary coating) can very easily be stripped off.

For higher temperature other coatings are available; high temperature acrylate (up to 150°C), silicone (up to 200°C) and polyimide (up to 300°C).

Features

Coated with the dual layer UV Acrylate DLPC9

Phosphorous free production

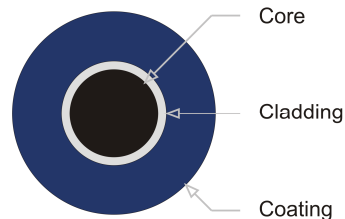
Excellent high temperature resistant Acrylate coating manufacturing process

Advantages

- Optimized performance in tight buffer cable applications
- High resistance to micro-bending
- Stable performance over a wide range of environmental conditions
- Improved easy stripping of tight buffer coatings

Improved performances under harsh environments

Superior geometry, uniformity and homogeneity



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Product Type: Low OH SI-MMF

Fiber Coating Type: Dual Layer Primary Coating Acrylate (DLPC9)

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| | Type | | | | | |
|----------------------|--------|--------|--------|----------|---------|---------|
| Core / Clad diameter | 40/125 | 50/125 | 50/125 | 62.5/125 | 105/125 | 105/125 |
| NA | 0.22 | 0.22 | 0.12 | 0.22 | 0.22 | 0.15 |
| Water content | Low OH | Low OH | Low OH | Low OH | Low OH | Low OH |

| Characteristics | Specified Values | | | | | | Units |
|-------------------------------|------------------|-------------|-------------|-------------|-------------|-------------|-------|
| Optical Specifications | | | | | | | |
| Numerical Aperture | 0.22 ± 0.02 | 0.22 ± 0.02 | 0.12 ± 0.02 | 0.22 ± 0.02 | 0.22 ± 0.02 | 0.15 ± 0.02 | |
| Attenuation at 850 nm | ≤ 10 | ≤ 5 | ≤ 20 | ≤ 6 | ≤ 12 | ≤ 20 | dB/km |

Geometrical Specifications

| Glass geometry | | | | | | | |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|----|
| Core Diameter | 40 ± 3.0 | 50 ± 3.0 | 50 ± 3.0 | 62.5 ± 3.0 | 105 ± 3.0 | 105 ± 3.0 | µm |
| Core Non-Circularity | ≤ 6.0 | ≤ 6.0 | ≤ 6.0 | ≤ 6.0 | ≤ 6.0 | ≤ 6.0 | % |
| Core/Cladding Concentricity Error | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | ≤ 3.0 | ≤ 3.0 | µm |
| Cladding Diameter | 125.0 ± 2.0 | 125.0 ± 2.0 | 125.0 ± 2.0 | 125.0 ± 2.0 | 125.0 ± 2.0 | 125.0 ± 2.0 | µm |
| Cladding Non-Circularity | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | ≤ 2.0 | % |
| Coating Geometry | | | | | | | |
| Coating Diameter | 242 ± 10 | 242 ± 10 | 242 ± 10 | 242 ± 10 | 242 ± 10 | 242 ± 10 | µm |
| Coating Concentricity Error | ≤ 12 | ≤ 12 | ≤ 12 | ≤ 12 | ≤ 12 | ≤ 12 | µm |

Material / environmental specifications

| | | | | | | | |
|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|----|
| Core Material | Germanium doped silica | Germanium doped silica | Germanium doped silica | Germanium doped silica | Germanium doped silica | Germanium doped silica | |
| Cladding Material | Pure silica | Pure silica | Pure silica | Pure silica | Pure silica | Pure silica | |
| Coating Material | Dual layers acrylate | Dual layers acrylate | Dual layers acrylate | Dual layers acrylate | Dual layers acrylate | Dual layers acrylate | |
| Operating Temperature | ≥ - 40 to ≤ + 85 | ≥ - 40 to ≤ + 85 | ≥ - 40 to ≤ + 85 | ≥ - 40 to ≤ + 85 | ≥ - 40 to ≤ + 85 | ≥ - 40 to ≤ + 85 | °C |

| | Standard | On request | Units |
|----------------------------------|----------------------|-------------|------------|
| Mechanical Specifications | | | |
| Proof Test Level | 0.7 (≥ 100) | 1.4 (≥ 200) | GPa (kpsi) |
| Short-Term Bend Radius | ≥ 10 | ≥ 5 | mm |
| Long-Term Bend Radius | ≥ 17 | ≥ 9 | mm |
| Delivery lengths | 250, 500, 1000, 2000 | | m |