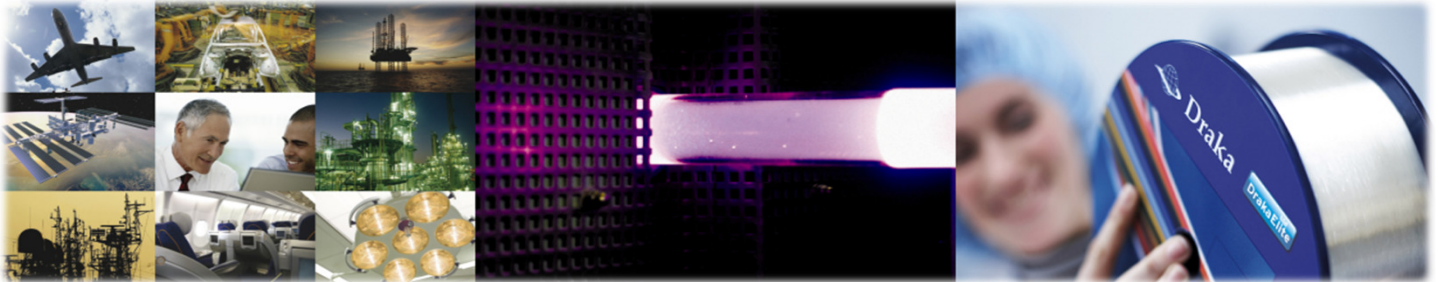


## RadHard 50 µm Step-Index Multimode Fibre

Low bandwidth radiation hardened 50 µm MMF for general-purpose irradiative applications

**Product Type:** Low bandwidth RadHard 50 µm SI-Multimode Fibre  
**Coating Type:** Dual Layer Primary Coating (DLPC9)

**Issue date:** 04-2013  
**Supersedes:** 12-2009



This **DrakaElite™ RadHard 50 µm core diameter Step-Index multimode fibre (SI-MMF)** is part of Prysmian Group’s growing family of radiation hardened fibres for applications from telecom to industrial.

Low bandwidth **RadHard Step-Index multimode fibres** are available, upon request, in different core diameters and with various numerical apertures. In this data sheet two types are indicated.

### Coating

**DrakaElite™ RadHard Step-Index multimode fibres** 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 fibre. In tight buffer applications the entire coating construction (tight buffer and primary coating) can very easily be stripped off.

For higher temperatures other coatings are available (e.g. high temperature Acrylate, up to 150°C)

Features	Advantages
Phosphorous free production	<ul style="list-style-type: none"> <li>Improved performances under harsh environments</li> </ul>
Coated with the dual layer UV Acrylate	<ul style="list-style-type: none"> <li>Optimized performance in tight-buffer cable applications</li> <li>High temperature coating available</li> </ul>



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Characteristics	Conditions	Specified Values	Units
<b>OPTICAL SPECIFICATIONS (Uncabled fibre)</b>			
Attenuation Coefficient	850 nm	≤ 10	dB/km
Overfilled Modal Bandwidth (min.) <sup>1</sup> Type 1	850 nm	14	MHz.km
Numerical Aperture Type 1		0.22 ± 0.02	
Overfilled Modal Bandwidth (min.) <sup>1</sup> Type 2	850 nm	50	MHz.km
Numerical Aperture Type 2		0.12 ± 0.02	
<b>GEOMERICAL SPECIFICATIONS</b>			
Core Diameter		50 ± 3	µm
Core Non-Circularity		≤ 6	%
Core/Cladding Concentricity Error		≤ 1.5	µm
Cladding Diameter		125.0 ± 2.5	µm
Cladding Non-Circularity		≤ 1	%
Coating Diameter		242 ± 12	µm
Coating Non-Circularity		≤ 5	%
Coating/Cladding Concentricity Error		≤ 10	µm
Length	Standard lengths	250, 500, 1000, 2000	m
<b>MECHANICAL SPECIFICATIONS</b>			
Coating Strip Force	Average strip force	1 to 3	N
	Peak strip force	1.8 to 13.2	N
Proof Test	Off line	> 0.7 (100)	GPa (kpsi)
<b>ENVIRONMENTAL SPECIFICATIONS</b>			
Operating Temperature Range		-40 to +85	°C

- 1). The modal bandwidth is linearly normalized to 1 km, according to IEC 60793-2-10.
- 2). OTDR measurement with 0.5 µs pulse width.
- 3). Mean of bi-directional measurement.
- 4). Aging at 23 °C, 0 °C and 45 °C; 30 days at 85 °C and 85% RH; 14 days water immersion at 23 °C.
- 5). Aging at 85 °C, 85% RH, 30 days.

