

Provisional DATA SHEET

DC-146 : Dual Cure Low Modulus Optical Coating / Adhesive

DC-146 is a Dual Cure low refractive index Coating/Adhesive. It is cured by either UV radiation, heat, or both. The material can be used for recoating a stripped optical fibers, in situations where UV radiation is partially or fully blocked. It has excellent adhesion to glass, metals and some plastics. A typical application is re-coating in cascaded Cladding Light Strippers. Its low modulus which enables high endurance under repetitive, high amplitude thermal cycles, which are typical in high power Cladding Light Strippers.

Properties

	Liquid state
RI liquid at 589 nm	1.446
Density, g/cm ³	1.10
Viscosity, cps @ 25°C	1200
	Cured state
RI cured at 589 nm	1.461
RI cured at 950 nm	1.454
Adhesion to glass, 90° Peel, g/cm	2000
Elastic modulus, MPa	17
Tensile Strength, MPa	4.3
Elongation at Break, %	170
Hardness, Shore A	

The product is supplied pre-filtered to below 1 micron particles.

Storage

1. Avoid unnecessary exposure to ambient light and moisture.
2. Long term storage should be in a cool place or in a refrigerator at 6-20°C.
3. The coating is supplied in glass bottles. Keep container closed to avoid moisture penetration.
4. The shelf life is 6 months.

Application

Curing can be achieved by any source of UV at 300-400nm. Typically, a dose of 1000-2000 mJ/cm² is necessary. To prevent tackiness on exposed surfaces, it is recommended to cure in an inert atmosphere (e.g. under nitrogen). There is no need for inert atmosphere when curing between two layers or in a mold (more on inert curing in the Technical Support page on our web site). If necessary a thermal curing can be activated by heating for 1-2 hours at 120°C. Keep the bottle closed in all times when not in use. The material is sensitive to light.

Safety: Refer to the SDS

Note: The above information is provisional. It is believed to be reliable, but it is not to be taken as a representation, warrantee or guarantee. Customers should perform their own QC, QA and evaluation tests.

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