

DATA SHEET

DC-133: Dual Cure Optical Coating/Adhesive

DC-133 is a Dual Cure low refractive index Coating/Adhesive. It is cured by either UV radiation, heat, or both. Its low refractive index provides effective light cladding. The material can be used in situations where UV radiation is partially or fully blocked.

Its adhesion can be increased by using one of our adhesion primers.

Properties

	Liquid state
RI liquid at 589 nm	1.332
Density, g/cm ³	1.71
Viscosity, cps @ 25°C	2200
	Cured state
RI cured at 589 nm	1.335
RI cured at 950 nm	1.330
Adhesion to glass, 90° Peel, g/cm	5
Elastic modulus, MPa	3
Tensile Strength, MPa	1.0
Elongation at Break, %	40
Hardness, Shore A	68
Volumetric Shrinkage, %	1.8

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. Keep container closed to avoid moisture penetration.
4. The shelf life is 12 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 website). 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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