

Preliminary DATA SHEET

SIL-143-XP1:

PFAS-FREE Low Refractive Index UV-curable Adhesive/Recoating

SIL-143-XP1 is a PFAS-Free low refractive index UV curable adhesive and recoating material. The material has good adhesion to quartz. The low modulus enables good resistance to thermal cycling.

The material is considered experimental at this stage and the information in this data sheet is not final.

Properties

	Liquid state
RI liquid at 589 nm	1.428
Density, g/cm ³	1.0
Viscosity, cps @ 25°C	1400-1800
	Cured state
RI cured at 589 nm	1.433
RI cured at 950 nm	1.428
Adhesion to Quartz, 90° Peel, g/cm	150
Modulus (MPa)	20

Storage

1. Avoid unnecessary exposure to ambient light and moisture.
2. Long term storage should be at ambient conditions of 10-25°C.
3. Do not refrigerate.
4. The coating is supplied in glass bottles. Keep container closed to avoid moisture penetration.
5. 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.

For ease of application the adhesive may be used preheated up to 50°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 not final and should be considered as an initial approximation. Final data sheet is expected by the end of September. In any case, even for a final data sheet, Customers should perform their own QC, QA and evaluation tests.

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