

MicroCure-UV72 UV-Curable Conformal Coating TDS

MicroCure® UV72 is a hydrophobic acrylic-polyurethane UV curable conformal coating with excellent chemical resistance, hardness, flexibility and water repellency. The coating is tack-free in under 60 seconds after UV light exposure. UV72 also has a moisture cure mechanism for curing light-unexposed areas in about 3 days. The coating is available in semi-transparent, black, white and brown colors. The colored versions help protect proprietary circuit board features.

MicroCure UV72 should be applied to substrates that have been cleaned. Testing to assess compatibility of MicroCure UV72 with assembly components, process conditions and cleanliness is recommended. MicroCure UV72 can be sprayed using selective coating equipment or conventional hand sprayers with adequate ventilation. The air source used for spraying must be dry (inert gas preferred) to prevent premature curing. Rework or touch up can be done by brushing. For proper tack-free curing, MicroCure UV72 must be exposed to adequate UV light.

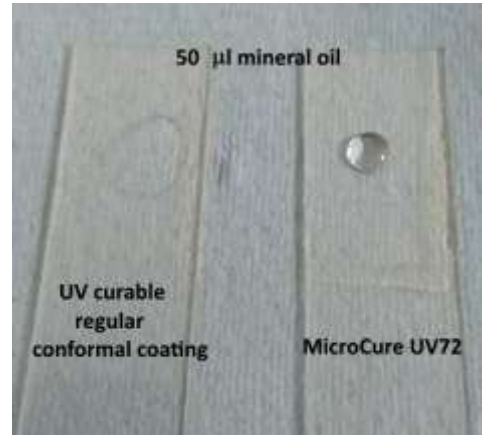


Table 1: UV-radiometer readings for MicroCure UV72 curing

	Joules/cm ²		Watts/cm ²			
	UVA	UVB	UVC	UVA	UVB	UVC
Arc Systems	1.5-3.0	1.5-2.8	0.4-0.8	0.5-0.9	0.5-0.9	0.1-0.2
Microwave Systems	2.0-3.0	2.0-3.0	0.4-0.7	0.7-1.2	0.7-1.2	0.1-0.2

Microwave UV ovens with “H” bulbs recommended

Clean-up of uncured MicroCure UV72 can be done with non-alcohol solvents such as ethyl-acetate and butyl-acetate. Cured films have good environmental and chemical resistance and are difficult to remove (compared to other conformal coatings such as FluoroPel). Heat and mechanical abrasion are options for removing MicroCure UV72.

MicroCure UV72 should be stored in cool (0 to 25°C), dry (moisture-free) and dark conditions. Partially used containers maybe purged with dry inert gas (nitrogen or argon) before sealing to avoid premature polymerization.

Table 2: Properties of MicroCure UV72

Density:	1.10 g/ml
Solids Content:	>95%
Viscosity:	~650 centipoise
Continuous Use Temperature Range (°C):	-65 to 150°C
Recommended Coating Thickness:	25 - 50 microns
Shelf Life:	6 months
Flammability:	No (V-0)
Dielectric Withstand Voltage:	>1550 volts
Dielectric Constant (1MHz/25°C):	~2.5
Insulation Resistance:	800TΩ
Water Contact Angle:	>100°
Mineral Oil Contact Angle:	>60°
VOC (grams per liter):	0
Coverage (meters-square per liter at 25 microns):	30 - 40

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