

UV/Moisture Cure High-Temp Silicone for Conformal Coating

PRODUCT DESCRIPTION

Incure Pyra-Sil™ 905 is a one-part UV/moisture cure, high temperature multi-substrates silicone adhesive sealant. Cured primarily with UV, it allows for fixation of assemblies in seconds. Hidden/shadowed areas can be fully cured with its secondary moisture cure feature in 72 hours. Product offers protection against ozone, harsh weather conditions and high temperatures. Incure 905 is often used as a conformal coating for PCBA and components protection against moisture and arcing in high altitudes. Product is designed for both manual brushing and high volume automatic dispensing or spraying systems.

CURE SCHEDULE

Primary UV Cure, sec	120
Secondary Moisture Cure, hr	72

UNCURED PROPERTIES

Chemical Type	Primary UV, Secondary Oxime Cure
Appearance	Clear
Viscosity, cP (rpm)	350 - 750
Density, g/ml	1.02

CURED PROPERTIES

Hardness, Shore	O65 - O95
Chemical Resistance	Good
Service Temperature	-45°C to 260°C (-49°F to 500°F)
Peel Strength, PSI (ASTM D790)	N.A.
Tensile Shear, PSI (ASTM D1002-94)	120
Elongation, %	N.A.

ADVANTAGES

Incure Pyra-Sil™ one-part moisture cure silicones cure at room temperature with no curing ovens and the energy costs. Adheres to many metals, ceramics, glass, laminates and plastics. Surface cures within 5 mins and 95% strength achieved from 24 to 72hrs. Heat < 60°C (140°F) may be used to accelerate cure. Excellent physical and electrical properties over a broad range of operating conditions.

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CURE SCHEDULE

Product is best cured with a high intensity lamp, preferably > 200mW/cm² of UVA. UV exposure starts the curing process and firm up the material with a skin layer, with moisture cure taking over to complete the full curing process. See Cure-Depth vs Time guide.

CURE DEPTH VS TIME GUIDE

Total Energy (J/cm ²)	After 24-hr*	After 48-hr*	After 168-hr*
2,000mJ/cm ²	4.8mm	7.9mm	12.5mm
3,000mJ/cm ²	5.0mm	8.1mm	12.5mm
4,000mJ/cm ²	5.1mm	8.3mm	12.5mm

*Guide based on 55% Relative Humidity, 25°C

SURFACE PREPARATION

All bonding surfaces must be free from contaminants such as grease, loose particles, oils, corrosive chemical stains etc. Rough or porous material such as metal castings should be baked at high temperature to burn off any embedded contaminants, especially trapped oils and chemicals. Smooth metal surfaces should ideally be abrasive blasted to 0.25mm (0.001") for optimum results.

APPLICATION PROCEDURES

Prepared surface can be coated simply by brushing method, dipping or dispensing (for selective area coating). Products with viscosities lower than 500cP are suitable for use on spraying systems.

STORAGE AND PREPARATION FOR USE

This product carries shelf-life of 6 months in the original, unopened packaging. For optimum results, all Pyra-Sil™ products should be stored in original containers below 22°C (72°F) in a cool dry place. Sealed containers in original packaging are guaranteed for 6 months when stored in the recommended temperature.

NOTE

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