

One Part, RTV Sealing/Potting Silicone for High Temp Applications

PRODUCT DESCRIPTION

Incure Pyra-Sil™ 891 is a one-part, room temperature cure conformal coating for sealing, potting, seam-filling and encapsulation applications. When applied, it self-levels and cures tack-free in 8 mins. Fully cure in 24 hrs at 25°C forms a flexible yet durable seal/coat, it provides protection against weathering, moisture, damage due to UV rays and high temperatures. Incure 891 fluoresces under blacklight for inspection, and can be coated on various substrates including metals and plastics and is designed for both manual brushing and high volume automatic dispensing systems.

CURE SCHEDULE

Primary UV Cure, sec	N.A.
Secondary Moisture Cure, hr	24

UNCURED PROPERTIES

Chemical Type	Oxime Cure
Appearance	Clear
Viscosity, cP (rpm)	800 - 1,200
Density, g/ml	0.99

CURED PROPERTIES

Hardness, Shore	A13 to A20
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)	220
Elongation, %	315

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

The data contained in this document are furnished for information only. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein. INCURE will not be liable for any indirect, special, incidental or consequential loss or damage arising from this INCURE product, regardless of the legal theory asserted. INCURE recommends that each user adequately test its proposed use and application before repetitive use, using this data as a guide.