Gelest HardSil™ AR

Electrical and Optical Barrier Silicone Resin Coating

Features: A clear silicone hard coat with excellent thermal and optical properties that provides a mechanical and oxidation barrier. HardSil™ AR is a curable polysilsesquioxane T-resin modified to provide sufficient flexibility to withstand thermal cycling associated with power-up of electrical and optical circuit components.

Applications:

Optical Components- provides effective scratch-resistant coatings with good adhesion to glass. High refractive index provides a step-index cladding.

Electrical components- hard, heat resistant coating for thermal cycling from room temperature to 290°C. Examples include resistor and capacitor coatings.

Capsular Description:	Thickness	Cure	Hardness	Type
	thin-thick	thermal	high	solvent-borne 1-part

HardSil™ AR High Temperature Electrical Coating - Thermal Cure

Description

HardSil™ AR is a primerless modified phenyl silicone resin for continuous use at temperatures up to 325°C, dispersed in methoxypropanol.

Film Properties

Color	clear
Hardness, Rockwell R	110
Refractive Index	1.56-1.58
Volume Resistivity	$1x10^{13}$ ohm-cm

Solution Properties

Form	liquid
Solids	20%
Flashpoint	35°C
Specific Gravity	0.92
Viscosity	3-5 cSt.

Shelf life: 12 months when stored below 25°C in sealed containers.
Keep container sealed after dispensing product.

Standard Packaging

PP1-HSAR HardSil™ AR
100g/ $29.00
1kg/$196.00
10kg/commercial package

Cautions

Use in a well ventilated area.
Flammable.
Avoid contact with skin and eyes.

Application Methods

Gelest HardSil™ AR is applied as a coating by spraying, dipping or brushing. Material is allowed to dry for 1 hour and then cured at 220°C for 20-25 minutes. Thinner films may be prepared by diluting with methoxypropanol. Cure can be accelerated by adding 0.5% zinc 2-ethylhexanoate, although this will reduce volume resistivity.