

Product Data

Optical Device Coating IVS4542

IVS4542 is a two-component, addition cure silicone rubber designed for optical device coating. This product cures with heat to an elastomer.

KEY FEATURES

- ◆ Low viscosity allows for excellent flowability
- ◆ Excellent transparency
- ◆ Convenient 1:1 mix ratio by weight
- ◆ Cures fast with heat and adheres to parts

APPLICATIONS

- ◆ Coating and potting of optical device

TYPICAL PROPERTY DATA

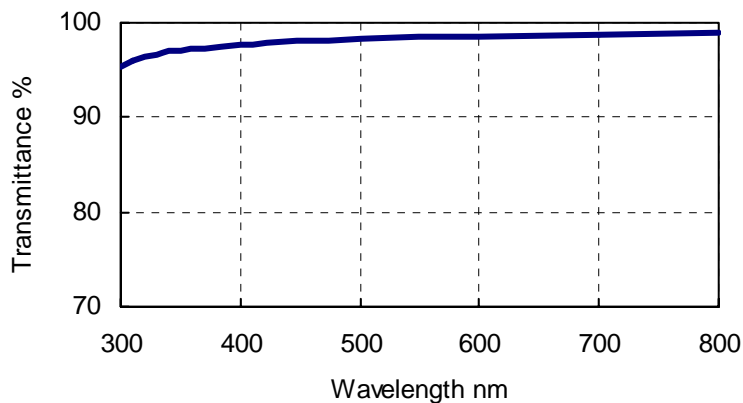
(JIS K 6249)

UNCURED PROPERTIES		IVS4542(A)	IVS4542(B)
Appearance		Transparent	Transparent
Viscosity (23°C)	Pa·s {P}	5.7 {57}	3.2 {32}
Mixing ratio by weight		1:1	
Viscosity after mixing (23°C)	Pa·s {P}	3.8 {38}	
Pot life (23°C)	h	8	
Refractive index (n_D^{25})		1.41	
CURED PROPERTIES (1h @ 150°C)			
Density (23°C)	g/cm ³	1.03	
Hardness (Type A)		48	
Tensile strength	MPa {kgf/cm ² }	6.6 {67}	
Elongation	%	110	
Lap shear strength*	MPa {kgf/cm ² }	3.7 {38}	
Linear expansion	1/K	2.8×10^{-4}	
Volume resistivity	$\Omega \cdot \text{cm}$	1.0×10^{15}	
Dielectric strength	kV/mm	20	
Dielectric constant (60Hz)		2.8	
Dissipation factor (60Hz)		0.001	

*Substrate: PPA (Polyphthalamide)

Typical property data values should not be used as specifications. Assistance and specifications are available by contacting GE Toshiba Silicones Commercial Office.

TRANSMITTANCE (uncured sample, thickness: 1mm)



INSTRUCTIONS FOR USE

1. Weigh out (A) and (B) to the clean container 3 - 4 times larger than the volume of silicone rubber compound to be used.
2. Mix (A) and (B) thoroughly with clean tools.
3. Deaerate the mixture under vacuum to remove air entrapped during mixing.
4. Apply and cure with heat.

Note:

All parts should be as clean and dry as possible prior to applications.

Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc. contained in the surface of the substrate can inhibit curing. It is recommended that a preliminary test be performed to determine the compatibility

HANDLING AND SAFETY

- ◆ Wear eye protection and protective gloves as required while handling the product.
- ◆ Maintain adequate ventilation in the work place at all times.

STORAGE

- ◆ Store in a cool and dry place out of direct sunlight.
- ◆ Keep out of the reach of children.

PACKAGING

- ◆ IVS4542(A): 500g plastic bottle available in case of 10
- ◆ IVS4542(B): 500g plastic bottle available in case of 10

FOR INDUSTRIAL USE ONLY

It is the responsibility of the user to determine the suitability of any GE Toshiba Silicones product for any intended application. NEVER USE ANY GE TOSHIBA SILICONES PRODUCT FOR IMPLANTATION OR INJECTION INTO THE HUMAN BODY. Specifications are available by contacting GE Toshiba Silicones. Typical property data values should not be used as specifications. Inasmuch as GE Toshiba Silicones Company, Ltd. has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the suitability of the material for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any GE Toshiba Silicones patent covering use or as recommendations for use of such materials in the infringement of any patent. Material Safety Data Sheets are available upon request from GE Toshiba Silicones. The contents of this catalog are subject to change without notice. No part of this data may be reproduced without the prior approval of GE Toshiba Silicones.



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