



PNS-56225

REV 3.1

DEFINITION

PNS-56225™ is a two-component clear *ONE TO ONE MIX RATIO* room temperature cure silicone encapsulant. It is designed for clear LED potting, encapsulation by casting of completed circuit boards, hybrid circuits, and power supplies, where flexibility, reparability, and high temperature resistance are required. Possible applications include automotive, telecommunications, transformers, cable end sleeves, capacitors, coils, insulators/bushings, transducers, and (re-enterable) telephone cable splicers

PRODUCT DESCRIPTION

Appearance	Clear water white liquid	
Odor	Faint	
Color	clear	
Property	Result	Methods
Viscosity	400 mPa·s	Brookfield HBT Spindle 27, 10rpm @ 25°C
Other information		
Pot life time @ 25± 2°C	20 minutes	
Specific gravity @ 20°C (g/cm ³)	1 approx.	
Possible curing cycles	<ul style="list-style-type: none"> 45 minutes, full properties develop after several hours. 	
Mix Ratio: (1:1)	By Weight:	Part A 100
	By Volume:	Part A 100
Shelf Life	One year in original unopened containers.	

APPLICATION PROPERTIES

- Since **PNS-56225™** has very good adhesion to most common circuit board materials, it does not require the use of primers, buffers, conformal coatings, or silicone gels that are needed for most applications.
- **PNS-56225™** provides long-term circuit protection from about – 65°C to 150°C.
- **PNS-56225™** is available in side by side dual cartridges of 50 ml, 200ml, 400ml, gallon and 5 gallon containers.

APPLICATION RECOMMENDATIONS

- For evaluation purposes: add equal parts **PNS-56225™ Part B** & **PNS-56225™ Part A** at room temperature. Mix thoroughly. Degas to 0.5 mm Hg or less until all entrained air has been expelled (about 2-3 minutes).
- **PNS-56225™** is designed to be applied by convenient two part cartridges or meter mix equipment.

TYPICAL PROPERTIES OF CURED PNS-56225™

The properties listed below were determined from measurements carried out in a limited number of tests. These properties are given as guidance, and do not constitute a guarantee. It will be for the user, in all cases, to carry out their own tests to determine whether **PNS-56225™** is suitable for the user's particular application.

Property	Result	Methods
Shrinkage on Cure	<1%	
Shore A Hardness	2	ASTM D2240
Thermal Conductivity	0.5 W/M/K	
Glass Transition Temperature	Tg 1: -64°C Tg 2: -48°C	TGA1
Weight Loss, (1 week at 150°C)	0.25%	
(Saturated) Steam Resistance, (72 hours, 15 psi steam, % weight gain)	1%	
Coefficient of Thermal Expansion	55 x 10 ⁻⁴ /°C	TMA1

Property	Result	Methods
Volume Resistivity <ul style="list-style-type: none"> • 100 V • 500 V • 1000 V 	2.5 x 10 ¹⁵ Ω-cm 1.9 x 10 ¹⁵ Ω-cm 1.4 x 10 ¹⁵ Ω-cm	ASTM D257
Dielectric Constant/Dissipation Factor <ul style="list-style-type: none"> • 120 Hz • 1000 Hz 	4.7/0.0085 4.8/0.0085	ASTM D150
Dielectric Strength (1.6 mm thickness)	25 kV/mm	ASTM D149
NASA Outgassing	0.27 %TML 0.13% CVCM 0.00% WVR	ASTM 595

STORAGE AND HANDLING

- Store **PNS-56225™** in a cool dry place away from food, heat, moisture, direct sunlight, acidic, oxidizing agents, and peroxides.
- Avoid contact with other materials containing sulfur, tin, nitrogen compounds, including rubber, epoxies, polyurethanes, polysulfides, polyamides, and other silicone RTV's which may inhibit cure.
- Blanket opened containers of **PNS-56225™** with dry nitrogen and closed tightly.

PRECAUTIONS IN USE

Refer to the material safety data sheet.

PACKAGING

For specific packaging requirements, please contact Protavic America, Inc.

The information contained in this data sheet corresponds to the present state of our knowledge; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover, the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.