PNU-46205

C6-57143
C6-57144

DEFINITION

PNU-46205 is an electronics grade; unfilled, room temperature fast curing; two-component polyurethane adhesive is designed for the adhesion and encapsulation of circuit boards, circuit board components and for screw-thread sealing. The cured materials provide long-term circuit protection and bond stability from -55°C to 100°C. **PNU-46205** bonds well to most metals, ceramics and plastics as well as to epoxy and paper phenolic circuit boards. The clarity of **PNU-46205** allows examination of all encapsulated components and circuit boards. **PNU-46205** is available in self-mixing **MixPac** ® for field use and in plant applications.

PRODUCT DESCRIPTION

Appearance	Liquid
Odor	Faint
Color (May be modified to meet you requirements)	WATER CLEAR (& colors)

Property	**Result**	**Methods**
Viscosity	8,000 mPa·s	Brookfield RVT, Spindle 27, Small Sample Adaptor, 10 rpm, 25°C

Other information	
Work life time @ 25 ± 2ºC	30 minutes
Gel Time @ 25°C	45 minutes
Full Cure Time @ 25°C	24 hours (in thin films)
Possible alternate curing cycles	5 minutes @ 65°C (149°F) 45 seconds @ 95ºC (203°F)
Mix Ratio:	1:1 Weight and Volume
Specific gravity @ 25ºC (g/cm³)	1.2
Storage stability (unmixed)	1 year at room temperature

APPLICATION PROPERTIES

- **PNU-46205** polymer backbone provides excellent flexibility at low and high temperatures, UV and moisture resistance.
- **PNU-46205** has low shrinkage on curing.

- **PNU-46205** has excellent adhesion to most substrates without primers.

- **PNU-46205** is unaffected by soldering or cleaning processes.

APPLICATION RECOMMENDATIONS

- Because of the high reactivity, of the components of **PNU-46205**, it is recommended that **PNU-46205** be used in the **MixPac®** dispensers. See packing requirements.

TYPICAL PROPERTIES OF CURED PNU-46205

The properties set out below were determined following measurements carried out in the laboratory over a small number of tests. They are values given by way of 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 the **PNU-46205** resin can be used for the particular application the user has in mind.

Properties	**Methods**	**Units**	**Typical values**
Shore A hardness	ASTM D2240	-----	80
Lap shear to AL @ 25°C	ASTM D3163	psi	2,000
Glass Transition Temperature (Tg)	DSC 1	°C	-38

ELECTRICAL PROPERTIES

Properties	**Methods**	**Units**	**Typical values**
Volume Resistivity • 100 V • 500 V	ASTM D257	Ω-cm	• 6.5×10^{13} • 4.6×10^{13}
Dielectric Constant • 120 Hz • 1000 Hz	ASTM D150	--	• 4.63 • 4.41
Dissipation Factor • 120 Hz • 1000 Hz	ASTM D150	--	• 0.027 • 0.027

PRECAUTIONS IN USE

Refer to the attached material safety data sheet.

PACKAGING

PNU-46205 is available in two-part **MixPac®** and as kits for meter mix systems. For part number and kit size information please contact Protavic America, Inc.