



# PNE-47850

C6-57619A

C6-57620B

## ***DEFINITION***

**PNE-47850** is a water white / clear low viscosity versatile epoxy casting system that exhibits low thermal expansion. This product is designed for use in a two to one volumetric mix ratio, side by side dispensing system (50ml cartridge +). It is recommended for small electrical/electronic casting and encapsulating applications that require a unique combination of excellent wetting, flow, good thermal expansion properties, thermal shock resistance, and outstanding electrical properties.

## **PRODUCT DESCRIPTION**

|   |        |
|---|--------|
| Appearance  | Liquid |
| Odor  | Faint  |
| Color (May be modified to meet your requirements) | CLEAR  |

| Property  | Result      | Methods  |
|-----------|-------------|--|
| Viscosity | 9,000 mPa·s | Brookfield RVT, Spindle 27, Small Sample Adaptor, 10 rpm, 25°C |

| Other information                            |   |               |              |
|--|---|---------------|--------------|
| Work life time @ 25 ± 2°C                    | 20 minutes (viscosity doubles)                |               |              |
| Gel Time @ 25°C                              | 30 minutes (depending on mass and substrates) |               |              |
| Full Cure Time @ 25°C                        | 24 hours                                      |               |              |
| Fixture/Handling Time @ 25°C                 | 30 minutes                                    |               |              |
| Fixture/Handling Time @ 65°C                 | 10 minutes                                    |               |              |
| Mix Ratio:                                   | By weight:                                    | Part A<br>100 | Part B<br>43 |
|  | By Volume:                                    | Part A<br>100 | Part B<br>50 |
| Possible curing cycles                       | 24 hours at 25°C<br>10 minutes @ 65°C (150°F) |               |              |
| Specific gravity @ 25°C (g/cm <sup>3</sup> ) | 1.2   |               |              |
| Storage stability (unmixed)                  | 1 year at room temperature                    |               |              |

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**APPLICATION PROPERTIES**

- **PNE- 47850**, when fully cured, is highly resistant to moisture, hot water, steam, hot antifreeze solutions, automotive fluids, detergents, gasoline, hydraulic fluids, plasticizers, cleaning agents, acids, and bases.
- **PNE-47850** is highly resistant to vibration and can be thermal cycled between -40 and 150°C.

**TYPICAL PROPERTIES OF CURED PNE-47850**

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 **PNE-47850** resin can be used for the particular application the user has in mind.

**PHYSICO-CHEMICAL PROPERTIES**

| Properties                  | Methods    | Units | Typical values |
|-----------------------------|------------|-------|----------------|
| Cure 1 hours @ 65°C (150°F) |            |       |                |
| Shore D hardness            | ASTM D2240 | ----- | 90             |
| Lap shear to Al             | ASTM D3163 | psi   | 2500           |

**ELECTRICAL PROPERTIES**

| Properties  | Methods   | Units | Typical values   |
|---|-----------|-------|--|
| Volume Resistivity <ul style="list-style-type: none"> <li>• 100 V</li> <li>• 500 V</li> </ul>     | ASTM D257 | Ω-cm  | <ul style="list-style-type: none"> <li>• 8.0 x 10<sup>14</sup></li> <li>• 6.3 x 10<sup>14</sup></li> </ul> |
| Dielectric Constant <ul style="list-style-type: none"> <li>• 120 Hz</li> <li>• 1000 Hz</li> </ul> | ASTM D150 | --    | <ul style="list-style-type: none"> <li>• 4.3</li> <li>• 4.3</li> </ul>                                     |
| Dissipation Factor <ul style="list-style-type: none"> <li>• 120 Hz</li> <li>• 1000 Hz</li> </ul>  | ASTM D150 | --    | <ul style="list-style-type: none"> <li>• 0.002</li> <li>• 0.002</li> </ul>                                 |

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**PRECAUTIONS IN USE**

Refer to the attached material safety data sheet.

**PACKAGING**

**PNE-47850** is available in two component kits, and twin syringe cartridges like Mixpac™.

For sizes and part numbers, 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.

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