

# TECHNICAL DATA SHEET

## NPR-1571 EPOXY

High Heat Epoxy System for Large Diameter CIPP

Rev. 20251215



### DESCRIPTION

Neopoxy NPR-1571 Epoxy is a two-part 100% solids epoxy coating specially designed for medium and large diameter high heat cured-in-place-pipe (CIPP) applications. Slow curing formulation designed for continuous heat resistance and structural strength. Low viscosity allows for rapid wet out of CIPP liner. Initial ambient cure should be followed with post cure to achieve superior heat resistance. Hydrophobic properties allow for effective curing in the presence of moisture. NPR-1571 Epoxy demonstrates excellent chemical resistance to sulfuric acid, nitric acid, sodium hydroxide, hydrogen sulfide, caustics, gasoline, and other hydrocarbons.

### FEATURES

- Specially formulated for high heat CIPP applications
- 100% solids, solvent free, no VOCs
- Chemical and corrosion resistant
- Very strong surface bond
- Protects for decades

### USES

- Impregnation of cure-in-place-pipe liners (CIPP) for pipe rehabilitation
- NPR-5305 Epoxy may be used for CIPP end sealing

### CIPP EPOXY OPTIONS

| Product  | Application                                | Initial Cure Time<br>100 Grams @ 77°F (25°C) |
|----------|--|--|
| NPR-5701 | CIPP Fast-Curing Epoxy System              | 30 Minutes                                   |
| NPR-4501 | CIPP Medium Diameter Epoxy System          | 55 Minutes                                   |
| NPR-1701 | CIPP Medium Diameter Epoxy System          | 2 Hours                                      |
| NPR-1571 | CIPP Large Diameter High Heat Epoxy System | 8 Hours                                      |

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## PHYSICAL PROPERTIES

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

| Description   | Standard                                 | Data   |
|---|--|--|
| <b>Mix Ratio (Resin/Hardener)</b>   | -  | <b>1 to 1 by Weight</b>                      |
| Initial Cure Time, 100 Grams @ 77°F (25°C)                                  | -  | 8 Hours                                      |
|   |  |  |
| Weight Per Gallon (Resin)   | -  | 9.7 Lbs                                      |
| Weight Per Gallon (Hardener)  | -  | 12.5 Lbs                                     |
| Weight Per Gallon (Mixture)   | -  | 10.9 Lbs                                     |
| Specific Gravity (Resin)  | -  | 1.17 G/ml                                    |
| Specific Gravity (Hardener)   | -  | 1.50 G/ml                                    |
| Maximum Service Temperature<br>(Postcured at 212°F (100°C))                 | -  | 300°F (149°C)                                |
| Coefficient of Linear Thermal Expansion                                     | -  | $3.738 \times 10^{-6}$ cm/cm/°C              |
| Shrinkage   | -  | <0.1%  |
|   |  |  |
| Viscosity, Resin @ 20 RPM, 77°F (25°C)<br>(Brookfield Spindle LV-4 [64])    | -  | 12,000 cPs                                   |
| Viscosity, Hardener @ 20 RPM, 77°F (25°C)<br>(Brookfield Spindle LV-4 [64]) | -  | 13,000 cPs                                   |
| Flexural Strength (Clear Cast)  | ASTM D-790                               | 16,000 psi                                   |
| Flexural Modulus (Clear Cast)   | ASTM D-790                               | 450,000 psi                                  |
| Flexural Strength (Laminate*)   | ASTM D-790                               | 11,000 psi                                   |
| Flexural Modulus (Laminate*)  | ASTM D-790                               | 470,000 psi                                  |
| Shore D Hardness  | ASTM D-2240                              | >85  |
| Adhesion to Concrete  | ASTM D-4541<br>ASTM D-7234               | Concrete Failure                             |
| Adhesion to Steel   | ASTM D-4541                              | >2,500 psi                                   |
| Abrasion Resistance (Taber Abraser)   | ASTM D-4060                              | 50 mg loss (1000 cycles<br>@ 1000 gram load) |
| Volatile Organic Compounds (VOCs)   | ASTM D-3960                              | 0.0 Lbs/Gallon                               |
| Chemical Resistance   | ASTM F-1216<br>ASTM D-543<br>ASTM D-2122 | Requirements Met                             |

*\*3mm PET Felt Laminate Cured at 176°F (80°C) for 4 hours.*

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## ADDITIONAL PRODUCT INFORMATION

**SAFETY:** Use of safety goggles, particle masks, coveralls, and chemical resistant gloves is recommended. Work in a clean, well-organized area with adequate ventilation. Keep uncured product containers tightly closed and away from children at all times. Please read and understand the full safety recommendations as set forth in the Safety Data Sheets (SDS) available on our website.

**ENVIRONMENTAL:** Neopoxy epoxies are comprised entirely of reactive solids (resin & hardener), which means that there are no solvents or thinners that evaporate during the curing process. Since the curing process binds all reactive components, the cured epoxies are inert, non-leeching, and safe for use on stormwater infrastructure, wastewater infrastructure, or for discharge into a wastewater treatment facility or natural body of water. Prior to mixing the epoxy, the applicant must handle the uncured resin and hardener with care and clean up any spills in accordance with local environmental regulations. For additional information please reference Safety Data Sheets (SDS) available on our website.

**SHELF LIFE & STORAGE:** Store product in closed container at 40°-80°F. Shelf life is one year from the manufacture date indicated on label.

**WARRANTY & DISCLAIMER:** Neopoxy LLC ("Neopoxy") warrants its products to be free of manufacturing defects in accordance with our internal quality control program. To the best of our knowledge the technical data contained herein is true and accurate on the date of publication. All Neopoxy products come with a manufacturer's product warranty active for one-year from date indicated on product label. This warranty exclusively covers Neopoxy products proven by the purchaser to be defective, up to but not exceeding either the purchase price of the product or a full replacement of the product. Neopoxy's warranty does not cover defects that arise from the contractor's improper storage, transportation, mixing, application, and/or workmanship. Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code, or insurance regulation.

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