

## **NPR-5305 One-Step Kit** **Super High Viscosity Hand-Applied Structural Epoxy System**

**Neopoxy's innovative epoxy kit makes repairing and protecting infrastructure easy.** Both the resin and hardener epoxy components are pre-packaged in a single bucket, allowing for a simple one-step mixing process. The epoxy can be prepared for application in minutes with only a drill and mixing paddle. Once applied, the epoxy quickly cures into a high strength, chemical and corrosion resistant protective surface that can last for decades.

- **Single Package - No Measuring, Weighing, or Messy Cleanup**
- **Easy to Mix and Apply**
- **Quick Curing**
- **Very Strong Surface Bond**
- **Chemical and Corrosion Resistant**
- **Prevents Inflow and Infiltration**
- **Third-Party Tested**
- **Environmentally Safe / No VOCs**
- **Protects for Decades**

**Uses:** Repair and protection of corroded or new manholes, sumps, wet wells, pipelines, vaults, tanks, concrete surfaces, exposed aggregate, cracks, and more. Epoxy can be applied up to 1/2" thick in a single pass.

**Size Options:** 3 Gallon, 1.5 Gallon, 1 Gallon, or .5 Gallon. One gallon covers 12 square feet at 1/8" thickness (125 mils).



**Neopoxy's NPR-5305 One-Step Kit requires only simple tools to mix and apply.**



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## NPR-5305 One-Step Kit

### *Storage, Mixing, and Application Instructions*

Epoxy systems are comprised of a resin and a hardener component that cure when mixed together. Neopoxy **NPR-5305 One-Step Kits** are conveniently pre-packaged at our factory with both the resin and hardener in the same bucket. [Mixing the components is very easy and requires no weight or volume measurements.](#)

**Storage & Shelf Life:** Store product at 40°-80°F. Shelf life at 75°F is three months from the manufacture date indicated on label. Shelf life may be longer at lower storage temperatures.

**Safety:** Use of safety goggles, particle masks, coveralls, and chemical resistant gloves is recommended. Work in a clean, well-organized area with adequate ventilation. Read and understand the product safety data sheet (SDS).

**Tools Required:** Personal protective equipment (PPE) listed above, right angle ½" drill with an RPM range of 450 to 1750 (such as a Milwaukee Super Hawg), mixing paddle, and joint knife or trowel.

**Preparation:** Surface must be clean with no standing water. Product adheres best to cool surfaces. Infiltration must be stopped before applying epoxy.

**Mixing:** Open the **NPR-5305 One-Step Kit**. Using the drill and mixing paddle, mix the kit contents at low speed until the epoxy is sufficiently fluid to mix at high speed. Make sure the mixing paddle reaches all the way to the bottom of the bucket. Mix thoroughly until a smooth color is evident.

**Application:** Immediately begin application with a joint knife or trowel, removing all mixed epoxy from the bucket as rapidly as practical and safe. Spread the epoxy ¼" thick onto a flat disposable surface (to then transfer to desired application area) or directly onto the surface to be protected. Multiple layers may be made to build thickness, but the materials must be allowed to cure and become cool to the touch before applying the next layer. Applications of up to ½" per layer may be made.

**HARDENING (CURE) TIME:** Epoxy is "mass sensitive," meaning that the larger the volume, the shorter the time it takes to harden and become unworkable. For example, when applied onto a surface at ¼" thickness, the product will harden in approximately one hour. However, when applied at thickness of ½", the time to harden may be as little as 30 minutes. *It is very important to limit the mass of mixed epoxy by spreading it to extend the working time.*



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### Typical Physical Properties

<b>Initial Cure Time, 100 Grams @ 77°F (25°C)</b>	<b>Approximately 30 minutes</b>
Specific Gravity (resin)	1.06 – 1.09 G/ml
Weight Per Gallon (resin)	8.9 – 9.1 Lbs
Specific Gravity (hardener)	1.64 – 1.71 G/ml
Weight Per Gallon (hardener)	13.7 – 14.3 Lbs
Weight Per Gallon (mixture)	11.3 – 11.7 Lbs
Flexural Modulus (ASTM D-790)	550,000 psi
Flexural Strength (ASTM D-790)	11,500 psi
Tensile Elongation (ASTM D-638)	5%
Tensile Strength (ASTM D-638)	7,000 psi
Tensile Modulus (ASTM D-638)	290,000 psi
Compressive Strength (ASTM C-579)	>18,000 psi
Coefficient of Linear Thermal Expansion	37 x 10 <sup>-6</sup> cm/cm/OC
Maximum Service Temp. (ambient cure)	150°F (66°C)
Maximum Service Temp. (postcured)	168°F (76°C)
Shore D Hardness (ASTM D-2240-15e1)	>86
Shrinkage	<0.5%
Adhesion: Concrete (ASTM D-4541-95e1)	Concrete Fails
Adhesion: Steel (ASTM D-4541-95e1)	2000 psi
Abrasion Resistance (D4060-95, CS17)	50mg/1000 @1000 gram load

Third party testing and extensive field experience demonstrates excellent chemical resistance to 30% sulfuric acid, 5% nitric acid, 5% sodium hydroxide, hydrogen sulfide, caustics, gasoline, and other hydrocarbons.



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