



NHT-5600™ Two-Part Epoxy Pipeline Coating

DESCRIPTION:

NHT-5600™ is a 100% solid, VOC free epoxy designed to work in conjunction with FBE coated pipe and is specially formulated for extended pot life while maintaining a cure time comparable to other epoxies.

USES:

Protection of pipeline field joint girth welds, valves, fittings, repairs to FBE coated pipe, coating for directional drill (ARO) and road bore pipe, and for coating rehabilitation of existing pipelines.

ADVANTAGES:

- Excellent high temperature (185°F / 85°C) cathodic disbondment resistance
- Fast touch, dry, and cure times
- Excellent adhesion characteristics
- High abrasion resistance suitable for horizontal drilling applications
- Impact resistant
- May be used as ARO coating
- Meets AWWA C210 Liquid Epoxy Coating Systems for Steel Water Pipelines
- Isocyanate free
- High build (up to 50 mils in a single coat)
- Excellent chemical resistance

APPLICATION:

- **NHT-5600™** must be applied to clean, dry, properly prepared surface only.
- Service temperature -40°F to 185°F / -40°C to 85°C
- Application temperature range is -30°F to 212°F / -34°C to 100°C.
- If substrate temperature is below 50°F / 10°C, preheating is required to achieve cure.
- Base and hardener material should be kept warm, minimum 60°F / 16°C to mix easily.
- Stir the individual base and hardener components separately until they are a uniform consistency. Add the hardener into the base and continue to stir the mixture until an even color is achieved and make sure all the material is scraped from the sides of the containers.
- Apply thoroughly mixed epoxy by brush, pad, roller, spray, or other approved method.

NHT-5600™ Properties:

| Property | Typical Results |
|---|--|
| Solids Content | 100% |
| Base @ 70°F / 21°C Specific Gravity Viscosity (70°F, Spindle #7, 2 RPM) Color | 10.15 lbs/gal / 1.22 g/mL 330,000 cps Light Gray |
| Hardener @ 70°F / 21°C Specific Gravity Viscosity (70°F, Spindle #7, 2 RPM) Color | 9.95 lbs/gal / 1.19 g/mL 100,000 cps Blue |
| Mixed Material Viscosity (70°F, Spindle #7, 2 RPM) Color | 250,000 cps Blue |
| Mix Ratio (Base:Hardner) By Volume By Weight | 3:1 3.13:1 |
| Cathodic Disbondment Testing ASTM G8 – 28 days @ 75°F / 24°C ASTM G42 – 28 days @ 175°F / 80°C | 1.4 mm 4.0 mm |
| Hardness (Shore D) | 85 ± 2 |
| Impact Resistance (ASTM G14) | 43 in-lbf / 4.9 Joules |
| Adhesion (ASTM D4541) | ≥ 4500 psi |
| Penetration @ 175°F (ASTM G17) | 6.4% |
| Hot Water Soak (NACE RP 0394) | Adhesion Rating:1 |
| Holiday Detection (based on minimum specified mil thickness) | 125 volts/mil / 5 volts/μm |
| Theoretical Coverage | 14 ft² per liter @ 30 mils 1.3 m² per liter @ 762 μm |
| Thickness – Welds and Coating Repair Recommended Minimum – Maximum | 25 – 40 mils / 635 – 1016 μm 20 – 70 mils / 508 – 1778 μm |
| Thickness – High Abrasion (Bore Pipe) Recommended Minimum – Maximum | 45 – 65 mils / 1143 – 1651 μm 40 – 70 mils / 1016 – 1778 μm |
| Surface Preparation Standard Profile | Near White Metal Blast NACE 2, SSPC SP-10 2.5 – 5 mils / 62 – 127 μm |
| Recoat Window @ 77°F / 25°C | Less than 2 hours |
| Cure Times Pot Life, 150g @ 70°F / 21°C Pot Life, 150g @ 97°F / 36°C Handling Time @ 77°F / 25°C Handling Time @ 97°F / 36°C | 18 minutes 6 minutes 3 hours 1 hour |

STORAGE:

Minimum 24 months when stored in original, unopened containers @40°F / 4°C. On job site where temperatures are below 50°F / 10°C product should be kept warm to mix properly (60 – 85°F / 16 – 30°C optimal). Do not allow material to freeze.

PRECAUTIONS:

This material is sold by **Polyguard Products, Inc.** only for the purposes described in this literature. Any other use of the products is the responsibility of the purchaser and **Polyguard Products** does not warrant nor will be responsible for any misuse of these products. **Polyguard Products** will replace material not meeting our published specifications within one year from date of sale.

CLEANING:

Clean equipment with MEK, Acetone or equivalent solvent.

HEALTH AND SAFETY:

All **Polyguard Products** Safety Data Sheets (SDS) and precautionary labels should be read and understood by all user supervisory personnel and employees before using. Purchaser is responsible for complying with all applicable federal, state, or local laws and regulations covering use, health, safety, and disposal of the product.