



TECHNICAL DATA

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CC 4500 EPOXY REPAIR-NSF APPROVED

Product Description

A high performance, high density, ceramic filled, brushable epoxy for the repair and touchup of Protec II PW and Protec II PW-ER.

Features

- Meets ANS/NSF Standard 61 requirements
- Low VOC
- Hard easily cleaned surface with good abrasion resistance
- No primer required
- Excellent chemical resistance
- Wet temperature resistance to 140 °F

Recommended Uses

- As a repair and touch coating for Protec II PW and Protec II PW-ER

Chemical Resistance

| | | | |
|------------------------|----|-------------------------|----|
| Sodium Hypochlorite 5% | E | Sodium Hydroxide 50% | E |
| Trisodium Phosphate 5% | E | Aluminum Sulfate 5% | E |
| Sulfuric Acid 10% | E | Ferric Chloride | E |
| Sulfuric Acid 50% | E | Acetic Acid 10% | U |
| Hydrochloric Acid 10% | VG | Water | VG |
| Nitric Acid 10% | VG | Saturated salt solution | VG |
| Nitric Acid 40% | U | Leaded Gasoline | VG |
| Phosphoric Acid 10% | E | Mineral Spirits | VG |
| Phosphoric Acid 40% | VG | Propylene Glycol | VG |
| Sodium Hydroxide 10% | E | ASTM #3 oil | VG |

E = Excellent VG = Very Good U = Unsatisfactory
7 day room temperature cure, 30 day immersion @ 75 °F.

Typical Properties

| | |
|---|--------------------------------------|
| Solids by Volume | 99 ± 1 |
| Volatile Organic Compounds | 0.0 lb/gal (0 g/l) |
| Theoretical Coverage | 1604 ft ² /gal @ 1 mil |
| Recommend DFT (typical) | 10-20 mils |
| Number of Coats | 2 or more |
| Mix Ratio (by volume) | 1 Hardener : 5.6 Resin |
| Shelf Life @ 60-90 °F (16-32 °C) | Part A 12 months Part B 12 months |
| Temperature Resistance | 140 °F (wet) 350 °F (Dry) |
| Color | White (only) |

Specification Data

| | |
|--|---------------|
| Compressive Strength ASTM D 695 | 12000 psi |
| Abrasion Resistance ASTM D 4060 CS 17 wheel – 1000g/1000 cycles | 15 mg loss |
| Adhesive Tensile Shear ASTM D 1002 | 2300 psi |
| Cured Hardness ASTM D 2240 | 90 Shore D |
| Dielectric Strength ASTM D 149 | 382 volts/mil |

Ordering Information

| | |
|-------------------|------------|
| Packaging: | 12 lb kits |
|-------------------|------------|

APPLICATION INFORMATION CC 4500

Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated in accordance with SSPC-SP 1.

Steel: Abrasive blast to a Near White Metal Blast in accordance with SSPC-SP 10 and obtain a 2-4 mil (50-100 μ) angular anchor pattern.

Existing Coating: Scuff sand to dull any gloss and visibly scratch.

Mixing

Add 1 part hardener to 5.6 parts resin and power mix thoroughly for about 4 minutes or until a uniform consistency is achieved, being careful to mix material from bottom and sides of the container.

It is strongly recommended that only full kits be mixed. If less than full kits use the following ratio by volume: 1 part hardener to 5.6 parts resin

Thinning

DO NOT THIN

Pot Life

| Material Temperature | Time |
|----------------------|------------|
| 75°F (24°C) | 45 minutes |

Application Conditions

| | Normal | Minimum | Maximum |
|-----------------|----------------------|----------------|----------------|
| Material | 75-90°F (24-32°C) | 55°F (13°C) | 90°F (32°C) |
| Surface | 75-90°F (24-32°C) | 55°F (13°C) | 90°F (32°C) |
| Ambient | 75-90°F (24-32°C) | 55°F (10°C) | 90°F (32°C) |
| Humidity | 30-50% | 0% | 85% |

- Surface temperature must be 5°F (3°C) above the dew point.

Application

Material is formulated to be brush or roller applied onto properly prepared surfaces using a short bristle brush or roller.

For best results material should be kept and applied at room temperature.

Material should be applied by brush or roller in a minimum of 2 coats to achieved desired thickness.

Use MEK or similar solvent for clean up.

Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

**Surface Temperature
75°F**

| | |
|--------------------------|------------|
| Working Time | 45 minutes |
| Tack Free | 3 hours |
| Recoat (min) | 3 hours |
| Recoat (max) | 20 hours |
| Full Cure | 36 hours |
| Functional Cure | 20 hours |
| Chemical Exposure | 6 days |

- If the material has exceeded its maximum recoat time or full cure time contact ITW Futura Coatings for recommended recoating procedures.
- Curing can be accelerated by using heat after the coating has been allowed to harden under ambient conditions. At 150°F material will cure in 4 hours.
- Holiday testing per NACE RP0199-98 should be conducted for all coatings going into immersion service. Use a setting of 100 volts/mil. All pinholes must be marked and repaired.

Safety Information

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use respirators rated for organic vapors, or in confined spaces wear fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.
- **This product is intended for industrial use by properly trained professional applicators only.**

Storage Conditions

- Coatings need to be protected from moisture contamination. Store drums and pails in a dry location at 55-90°F (13-32°C).
- Materials **must** be kept above 55°F (13°C).

ITW FUTURA COATINGS, 1685 GALT INDUSTRIAL BLVD., ST LOUIS, MO, (314) 733-1110

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