INDURON
PROTECTIVE COATINGS
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TECHNICAL DATA

PERMASAFE™ 100 CERAMIC EPOXY

COATING DATA

DESCRIPTION:

PermaSafe 100 is a solvent free, immersion grade lining incorporating ceramic pigment into an amine cured epoxy resin for maximum corrosion protection of steel and concrete substrates immersed in sewage or exposed to many other aggressive environments. PermaSafe 100 is a unique and outstanding barrier coating formulated for the protection of steel and concrete in corrosive environments.

Available in Black

PermaSafe™ 100 Ceramic Epoxy

- High build coating that can be applied to provide up to 50 dry mils per coat.
- Complies with current U.S. EPA National Volatile Organic Compound (VOC) Emission Standards for OTC states effective January 1, 2005 and proposed for national AIM regulations in 2009.
- Performs well in many aggressive corrosive environments including the following:
  - Immersion in neutral, alkaline, and salt solutions.
  - Immersion in wastewater.
  - Immersion in concentrated caustic solutions.
  - Acid fumes, splash, and spillage.
  - Immersion in aliphatic petroleum hydrocarbon solvents.

USE:

Use as a protective barrier coating on steel, non-ferrous metals and concrete exposed to sanitary sewage and other aggressive environments. It is ideal for protecting steel and concrete immersed in non-potable water, sea water, brine solutions and chemically contaminated water.

LIMITATIONS:

Do not use for immersion in concentrated solutions of mineral acids or organic acids. Maximum continuous immersion service temperature – 120°F (49°C). Contact Induron Technical Service at 1-800-324-9584 for other chemical exposure recommendations.

SURFACE PREPARATION:

Steel (Immersion) - SSPC-SP 10/NACE 2 Near-White Metal Blast with a 1.5-3.0 mil dense angular surface profile. Remove surface contaminants prior to recoating or repair.
Steel (Non-Immersion) **-** SSPC-SP 6/NACE 3 Commercial Blast Cleaning with a 1.5-3.0 mil dense angular surface profile. Remove surface contaminants prior to recoating or repair.
Concrete **-** New concrete must cure for at least 28 days. Verify dryness by testing for moisture per "ASTM D4263 Plastic Sheet Method". Substrate must be clean, dry, sound and free of all curing compounds, oils, greases, laitance or any other contaminants. All concrete surfaces shall be made free of voids, cracks and other imperfections using Induron EFS 707 Epoxy Surfacer or Induron Mortarchem. Prepare the surface per ICRI 310.2 to achieve surface profile to meet a CSP 2 or higher.
Ductile Iron **-** Contact Induron Technical Service.
Recoating **-** May be recoated with itself within 30 days at 75°F or less without abrasion. Prior to recoating, remove all chalk and/or other surface contaminates. Cure times exceeding 30 days require a sweep blast as per SSPC-SP 7/NACE 4 with angular abrasive or power tools.

COVERAGE:
Theoretical—1,604 ft^2 per gallon at 1.0 mil dry film thickness
32 ft^2 per gallon at 50 mil dry film thickness.

FILM THICKNESS:
15-50 mils per coat DFT corresponding to 15-50 mils wet (100% solids by volume). May be applied in multiple coats for certain applications

APPLICATION DATA

BLEND RATIO:
One part Perma-Safe 100 Part A Base to one part Perma-Safe 100 Part B Activator by volume.

POT LIFE:
Less than 10 minutes @90F, 15 minutes @ 70°F, 30 minutes @50F.

APPLICATION:
Plural Airless Spray – Pump capable of 100 psi operating pressure and 3500 psi line pressure, heated hose bundles, hopper/drum setup capable of constant agitation, 3/8" diameter material hose with no less than 18 turns between two sets of static mixers, 1/4" whip hose connected to a gun with a 25-31 thousandth's tip. Heat unmixed material to 80ºF prior to and during spray. Contact Induron technical service for additional heating or thinning recommendations.

Single-Leg Airless Spray – *not recommended*

Roll – Use lambswool cover for small areas. Additional coats may be required to achieve desired film thickness.

Brush – Small areas, striping and touchups only, Use natural bristle brush

THINNING:
Not normally required. Use Acetone or MEK for clean up

CLIMATE:
Use this product only if the substrate temperature and ambient air temperature is above 40°F and is expected not to decrease for at least two hours after application. The substrate temperature must be 5°F above the dew point for a period of at least two hours after application to avoid condensation occurring on wet paint. Ambient humidity should not exceed 85% during application.

CURE TIME:

*	Dry to Handle	Dry to Recoat Min	Cure for Immersion
50°F	12 hrs	12 hrs	7 days
70°F	6 hrs	8 hrs	72 hrs
90°F	3 hrs	5 hrs	72 hrs

*Higher film thicknesses, low ventilation and higher humidity conditions will tend to retard cure times

Material may be recoated for 30 days (dependent on conditions) without abrasion.

PHYSICAL DATA:

VOLUME SOLIDS: 100% (mixed)
SOLIDS BY WEIGHT: 100% (mixed)
WEIGHT PER GALLON: 9.69 ± .2 lbs. /per gallon
VOLATILE ORGANIC CONTENTS: Combined – 0.17 lbs. /gallon or 21g/L
HAZARDOUS AIR POLLUTANTS (HAPS): 0.0 lbs. /gallon

SAFETY DATA:

See individual product label for safety and health information. Individual Material Safety Data Sheets are available upon request.

PACAKGING, AVAILABILITY & STORAGE:

Available in 10 gallon (two 5 gal A and B units) and 90 gallon (two 45 gallon A and B units) kits
Shelf Life: 18 months @ 75 °F (both components)
Storage: Material should not exceed 30-90°F in long term storage