



ChemShield 1104

Epoxy Concrete Primer

Technical Data Bulletin

PRODUCT DESCRIPTION

ChemShield 1104 is a thin-film, 100% solids reinforced, propriety formulated epoxy-based polymer designed for general use as a primer and sealant for concrete, cinder block, fiberglass, and steel. **ChemShield 1104** is a two-component system; Resin and Hardener.

TYPICAL USES

- * Industrial and domestic waste water tanks, basins, and sumps.
- * Swimming pools, spas and other aquatic environments
- * Concrete, cinder block and masonry structures used in car wash tunnels

BENEFITS

- Easy to install, roller or spray-applied monolithic application process
- Flexible to reduce coating stress caused by physical, thermal, or mechanical forces
- Excellent adhesion to concrete, & steel substrates
- Seals and protects concrete surfaces against degradation caused by exposure to water
- Promotes adhesion of topcoat and substrate
- Abrasion and impact resistant
- VOC compliant

CHEMICAL RESISTANCE

Summarized; for a more comprehensive list of chemical resistance, please refer to our Product Resistance Data Guide. Films cured for 7 (seven) days at 77°F are unaffected after 1 (one) year immersion at ambient temperatures.

- Ammonium Hydroxide (mild)
- Benzene
- Brine Solution
- Calcium Chloride
- Detergents, diluted
- Gasoline, all grades

CHEMICAL RESISTANCE (continued)

- Hydrochloric Acid (mild)
- Mineral Spirits
- Oil (animal, vegetable)
- Oil (petroleum)
- Sodium Bicarbonate
- Sodium Chloride (20%)
- Sodium Hydroxide (10%)
- Sodium Phosphate (50%)
- Starch
- Sulfuric Acid (10%)
- Water, distilled
- Water, salt (20%)
- Water, waste

TECHNICAL DATA

Weight, lbs/gal.	9.9+/- 0.5
Recommended Thickness, mils DFT	0.5 - 10
Theoretical Coverage, mil sq.ft./gal.	1600
(Depends on porosity)	
VOC Content (mixed), g/l	0
Flash Point (mixed), °F	>200
Mix Ratio, weight/volume Part A to B	2:1
Pot Life, minutes @ 77°F	>25
Barcol hardness, min.	65
Color(s)	Light Gray

Coverage to Achieve Dry Film Thickness, sq.ft./gal. (Depends on Porosity)

(Actual - allows for approximate loss of 10%)	
@ 0.5 mils	320
@ 10 mils	160

Drying Time (@ 77°F and 50% relative humidity)

To Touch	3 to 5 hours
To Handle	5 to 8 hours
To Recoat	3 to 5 hours

Cure Time* to Achieve a Minimum Barcol hardness of 65 (@ 77°F and 50% relative humidity)

For Immersion Service 24 - 36 hours
 *Force curing is required for low temperature applications to expedite curing process.

APPLICATION INFORMATION

Method

Conventional or airless spray system (min. 30:1 compression ratio) or a roller can also be used. Back rolling is recommended if spray applied.

Minimum Temperature of Application (Air)

45 °F, otherwise force curing is required.

Thinning

Not recommended or desired.

Handling

Store at moderate temperatures (65-85°F) prior to product application for ease of handling and mixing. Additional heating may be required and is recommended for spray application.

Mixing

Mechanically pre-mix each component; add the hardener into the resin and then mix the combined compound at 400-600 rpm for 3 to 4 minutes.

Surface Preparation

All surfaces shall be clean and dry, free of dust, dirt, oil or any other foreign matter. Concrete surfaces shall be abrasive blasted (brush-off blast) or etched and neutralized with acid. All protrusions such as mortar spatter and fins shall be removed by grinding. Repair cracks by injection or by routing and sealing. Holes, spalls, or cracks shall be filled with an epoxy mortar or sealant. For additional information regarding surface preparation specifications and techniques, please contact our technical services department.

PACKAGING AND SHIPPING INFORMATION

All Wolverine Coatings Corporation's ChemShield products are packaged as two-component units consisting of a slack-filled pail of resin and a slack-filled pail of hardener. Kits are available in 1G, 4G, 15G, and 150G units.

DOT Class (resin) - Not regulated

DOT Class (hardener) -Paint Related Material, 8,
DOT Number UN 3066, III

**All shipments are freight collect, F.O.B.
Shipping Point (Florida, South Carolina,
Georgia, or Texas).**

GENERAL SAFETY GUIDELINES

Wolverine Coatings Corporation products are for industrial use only and installed only by qualified coating and lining contractors. Store in a cool, dry area away from direct sunlight, sources of ignition and other hazards. Personnel shall wear protective clothing and eyewear, solvent-resistant gloves and OSHA approved respiratory equipment. Avoid contact with eyes and skin. Do not ingest or inhale. In some cases may cause skin irritation and allergic reactions. Refer to product Material Safety Data Sheets (MSDS) for information regarding emergency and first aid procedures, health effects, reactivity data and other special precautions. All work shall be performed in accordance with current OSHA regulations.

The information contained herein is to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no warranty of results and assume no liability for any damages incurred by the use of this product. Our products are sold on the condition that the user evaluates them, as well as our recommendations, to determine the suitability for a particular purpose. The user is solely responsible for the selection of Wolverine Coatings Corporation products.