Valspar
FEDERAL FLOORING DIVISION

EC-8 EPOXY
PRIMER/SEALER
2295

Technical Data Sheet

DESCRIPTION:
The EC-8 EPOXY PRIMER/SEALER is a two component, solvent cut epoxy/polyamide primer/sealer that dries hard to a smooth glossy film. Dirt, dust, oils, and corrosive spills can be wiped away quickly and easily.

USES:
Use as a primer under EC-5 ACTI-FLO HI-SOLIDS coating or as a low cost sealer and dustproofer for interior concrete floors. Can be used as a primer under other epoxy and urethane coatings when PR-14 WB KWIK PRIME can not be used.

ADVANTAGES:
- Easy to maintain
- Fast curing - minimum downtime
- Easy one to one by volume mix ratio
- Good chemical and abrasion resistance

PACKAGING:
The EC-8 EPOXY PRIMER/SEALER is packaged in pre-proportioned 10 gallon units (1-batch) for error-free jobsite mixing and application.

Each 10 gallon unit consists of 1 batch of product, comprised of 1 five gallon pail of Part "A" Hardener and 1 five gallon pail of Part "B" Resin, which are mixed together at a ratio of one to one by volume.

COVERAGE:
Approximately 400-500 sq. ft. per gallon or 4000-5000 sq. ft. per 1 batch-10 gallon unit, over relatively smooth, dense concrete surfaces. Actual coverage will vary depending on the texture and porosity of the concrete.

ASSOCIATED PRODUCTS:
Preparation: PC-40 DYNOMITE
PC-41 SOLV-KWIK
PC-42 ACID CONDITIONER

Priming: PR-14 WB KWIK PRIME

LIMITATIONS:
This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the coating. Do not apply to concrete floors less than 60 days old. Do not apply to floors previously treated with curing and parting compounds or other coatings unless they have been completely removed by chemical or mechanical means. Do not use on vinyl, asphalt, rubber, glazed tile, paving brick, quarry tile, Mexican tile, or similar materials.

Do not apply if the floor or air temperature is below 60°F or over 90°F or if the relative humidity is above 85%. Do not apply over honeycombed or structurally unsound surfaces.

Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or Federal Technical Service.

GENERAL DATA:

Percent Solids By Weight:	35% ± 1.0%
VOC:	624 g/l
Flash Point, TTC:	75°F
Gloss @ 60°:	90+
Recommended Film Thickness at 400-500 sq. ft. per gallon:	Clear Wet: 4.0 - 3.2 mils/coat Dry: 1.2 - 1.0 mils/coat
Suggested Number of Coats:	One coat as primer. Two coats as sealer and dust proofer.
Induction Time:	30 minutes
Application Method:	High quality 3/8" nap solvent resistant roller.
Thinner:	NOT RECOMMENDED
Dry Time @ 75°F:	Tack free in 8 hours Light Traffic in 18-24 hours Heavy Traffic in 3 days
Recoat Time @ 75°F:	From 8 to 24 hours. After 24 hours, screen before recoating.
Shelf-Life:	2 years in unopened container

TYPICAL PHYSICAL PROPERTIES:

Test	Description	Values
Abrasion Resistance	Taber Abraser: CS-17 wheel, 1000 cycles, 1000 gm load.	45 mg loss
Adhesion	To concrete: Existing epoxy coatings with proper preparation	Excellent
Flexibility	Bent on 1/8" conical mandrel	No cracking or crazing
UV Light Resistance	Q-U-V Accelerated Weather Tester	Fair

Above typical values based on cure @ 75°F

Sealed surfaces may discolor under tires due to tire plasticizer migration.

If the product is to be applied in or near areas containing foodstuffs, they should be removed before the application and until the coating has fully cured and all vapors have dissipated.

Do not thin this product. Addition of thinners will slow down the cure and reduce the ultimate properties of this product. Critical recoat times will also be affected.

As with all high performance coatings, the cured product may become slippery when wet or if exposed to oily conditions. For a procedure for incorporating aggregate to obtain a non-slip finish, contact Technical Service.

If there is any question as to whether or not the product will adhere to an existing coating, a test patch should be applied and evaluated for compatibility and adhesion.

This product is not intended to be sprayed.
This product has a limited pot life. This product should be applied from a roller tray and not by pouring directly onto the concrete surface.

Do not use UR-4 Color Add if using as a topcoat or putting a clear coating on top. Some color separation may occur.
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PRELIMINARY FLOOR INSPECTIONS:

In general, the area to be surfaced must be clean, sound, dry and above 60°F to assure a successful installation. Concrete must be at least 60 days old.

If there is uncertainty as to whether or not a curing compound or any coating is present on the floor, the following two tests may be performed in order to find out:

1. Pour a cup of water on three or four areas of the floor. If the water puddles out, then there probably is no curing compound or any coating on the floor, and the preparation process may begin. However, it the water beads up like on a waxed car, this may indicate the presence of a curing compound or any coating that must be removed by chemical or mechanical means.
2. Place a drop of PC-42 ACID CONDITIONER on the floor. If the acid bubbles, a curing compound or any coating is not present.

Always be alert to any possible airborne or surface contaminants that may contribute to problems such as fisheyes, crawling, cratering, etc.

The concrete floor should be examined for the presence of moisture. This can be accomplished by the following means:

1. Calcium Chloride Test
2. Delmhorst Moisture Meter
3. Polyethylene Sheet Method

Calcium Chloride Test: This test method works by a change in weight of moisture absorbing anhydrous calcium chloride and indicates the amount of moisture transmitting out of a large concrete surface area. Pounds is the equivalent weight of the water that is emitted from a 1,000 square foot concrete slab surface area in a 24 hour period of time (standard test duration is 60 hours). Concrete must not show moisture content greater than three pounds per 1,000 square feet in 24 hour time frame. Follow instructions as outlined by the supplier of the test kits. Make sure the concrete surface to be tested is completely clean of any residue and any debris. All seals, including curing compounds must be removed prior to performing tests. Sources: Roofing Equipment Inc., Denver, CO 303-371-7667; Sealflex Industries Inc., Costa Mesa, CA 714-708-0850; Vinyl Plastics Inc., Sheboygan, WI 920-458-4664; and Floor Seal Technology, San Jose, CA 408-436-8181

Delmhorst Moisture Meter - This meter uses electrical resistivity to determine the moisture content of concrete at or below the surface. The most accurate way to get a reading with the probes is to make two holes in the concrete (with a hardened concrete nail). The depth of the 2 probe holes can be approximately 1/16 to 1/8 inch in depth. The probes are then placed in the two holes and a reading is taken A few readings should be taken at various locations of the floor. In adhesion failures, check concrete under newly peeled films. A reading of 17 or higher on a scale of 100 is considered too wet to seal or a moisture problem is present in the slab, causing a coating system to fail. It is highly recommended that all concrete slabs be checked for moisture, no matter what the age of the floor.

Polyethylene Sheet Method - An effective method to test for excessive moisture within the concrete (capillary moisture) is the Plastic Sheet Method. This method is done by taping (2 inch duct tape) a 4 mil thick clear plastic sheet 2 foot x 2 foot to the slab surface. The sheet can remain on the surface for 16-24 hours. After this time duration the plastic sheet should be removed and the underside checked for moisture. If visible moisture collects under the plastic film - the concrete has too much moisture within it for successful coating application. The slab must be allowed more time to cure. Note: Prior to taping plastic sheet to floor, thoroughly clean and/or strip any soil or coatings on the

surface. This test will not work over chemically hardened concrete. Hardener must be eliminated for this test to be effective.

SURFACE PREPARATION:

All oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners and other surface contaminants must first be removed. PC-43 WASH OFF REMOVER or PC-46 DRY EZE should be used for removal of sealers, finishes and paints. Inspect the concrete and remove loose or soft concrete by scarifying, sand blasting or high pressure water blasting.

STANDARD TESTS:

Refer to the standard test methods below for further information.

ASTM D 4258-83	Standard Practice for Surface Cleaning Concrete for Coating
ASTM D 4259-83	Standard Practice for Abrading Concrete
ASTM D 4260-83	Standard Practice for Acid Etching Concrete
ASTM D 4262-83	Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces

CHEMICAL PREPARATION:

PC-40 DYNOMITE should be used as directed to remove all traces of grease, oil, and dirt followed by a thorough rinsing to remove all cleaning residues. Remove excess water with a good wet vacuum. To remove laitance and to give a slight texture to area to be surfaced, acid-etch using PC-42 ACID CONDITIONER. Using a 1:1 dilution ratio with water, apply evenly as possible to the surface and vigorously scrub into the surface with a stiff bristle brush or automatic scrubber. Thoroughly rinse with copious quantities of water and use wet vacuum to remove any residues. Repeat this process until concrete surface is the texture of a medium grit sandpaper.

MECHANICAL PREPARATION:

If acid cannot be used, mechanically abrade or “shot-blast” the surface to the texture of a medium grade sandpaper, then vacuum up any dust.

Whenever “shot-blasting” is utilized, be careful to leave concrete with a uniform texture. Over “blasting” will result in reduced coverage rates of the EC-8 EPOXY PRIMER/SEALER and/or subsequent top coats. It is also possible that the texture of the “shot-blast” pattern may show through the last coat.

In most cases, multiple coats will be required in order to cover the profile created by a properly "shot-blasted" floor.

MIXING:

It is important to remember that this coating has a limited pot life. Therefore it is wise to check and make sure everything is in order before starting the mixing sequence.

Color Additives: DO NOT USE UR-4 COLOR ADDS WITH EC-8 EPOXY PRIMER/SEALER.

1. Carefully pour out equal quantities of Part "B" Resin and Part "A" Hardener into mixing vessel.
2. Mix with a very low speed jiffy mixer, until completely blended. This will take about 3 to 5 minutes. Be careful not to introduce any air bubbles while mixing.
3. Due to the difference in viscosity between the Part A Hardener and Part B Resin, care must be taken to ensure that both components are thoroughly mixed in order to avoid weak or partially cured spots in the coating.

APPLICATION:

Avoid application if the floor temperature is below 60°F or above 90°F. Atmospheric, floor and product liquid temperatures should always be considered before applying this product.

1. EC-8 EPOXY PRIMER/SEALER should be applied at 400-500 sq. ft. per gallon over a dry floor. Over shot blasted floors, coverage may be reduced to 300-400 sq. ft. per gallon when priming a very rough floor.
2. This product should be applied from a roller tray and not by pouring directly onto the concrete surface. A high quality, 3/8 inch nap roller should be used.
3. Apply as evenly as possible. To lessen bubbling of the coating, avoid excessive agitation of the liquids with the roller.

POT LIFE:

Useful working time is approximately 4 hours at normal application temperatures and conditions of 77°F and 50% R.H.

DRYING TIME:

1. Under normal cure conditions, this product will be tack free in approximately 8 hours. If a second top coat is desired, allow a minimum of 8 hours but no more than 24 hours between application of each subsequent coat. If more than 24 hours has elapsed, screen prior to recoating.
2. Allow approximately 18 hours cure after last coat for light foot traffic. When heavy traffic is involved, it is best to wait a minimum of 72 hours. For maximum abrasion and chemical resistance, a cure time of 7 days is recommended.

	Clear
Tack Free	8 hrs.
Recoat	8-24 hrs.
Light Traffic	18-24 hrs.

All dry times will vary depending on atmospheric conditions at the time of application.

CLEAN-UP:

Equipment should be cleaned immediately after use with soap and water or UR-9 MCU THINNER.

CRITICAL RECOAT TIME:

It is important to apply subsequent coats of this and other products within 8 to 24 hours (under normal curing conditions). If this coating is allowed to cure longer than the 24 hours before subsequent recoats, screening will be necessary. The floor surface should be screened to the effect that a uniform dullness is achieved. There should be no gloss present on the floor before applying the next coat.

TROUBLE SHOOTING:

PROBLEM OBSERVED	POSSIBLE CAUSES
Fisheyes	Oil Contamination; Improper substrate cleaning; Mold Release Agents; Improper Mixing.
Peeling From Substrate	Insufficient preparation process; Oil impregnation; Moisture in concrete.
Peeling Between Coats	Past critical recoat time; Contamination between coats.
Coating Soft, Dulling	Improper mixing; Use of thinner in product; Extreme weather conditions.
Slow Cure	Low floor and ambient temperatures; Use of thinner in product; Improper mixing; Product applied too thin.
Fast Cure	High floor and ambient temperatures.
Bubbling	High temperatures; No primer used; Working product past pot life; Improper mixing overworked the product.

REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER SAFETY AND HANDLING INFORMATION.

See individual labels for more caution statements.

KEEP OUT OF THE REACH OF CHILDREN.

DISPOSAL:

Dispose in accordance with federal, state, and local regulations. Use licensed hazardous waste company.

Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned.

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