

Epitem Water Based 2 Pack Epoxy Primer

WM2078

PRODUCT TYPE

Water Based, Two Pack Epoxy Primer.

PRODUCT DESCRIPTION

Epi-tec Primer is a two component BIS A EPOXY and POLYAMIDE water based epoxy primer designed for the sealing and priming of concrete surfaces. The product is supplied as a Part A and Part B, which are mixed at a 1:1 ratio just prior to application and can be applied to most correctly prepared concrete surfaces.

Epi-tec Primer is water-based and therefore, provides a coating that is simple to mix, apply and clean-up. Most importantly, the product provides the applicator with a low odour environment during application.

The applied wet film of Epi-tec Primer flows and levels extremely well. The product penetrates concrete surfaces and dries to provide a solid primed surface ready for top-coat application. The cured film is tough and offers good resistance to most chemicals and hydrostatic water pressure. Epi-tec Primer exceeds the chemical resistance of conventional solvent based epoxy's in areas of solvent resistance.

Epi-tec Primer is suitable for use on new or correctly prepared existing concrete surfaces as a primer under products such as;

- Water based Epoxy Topcoats.
- Acrylic membranes and coatings.

Epi-tec Primer is suitable for use as a concrete primer under finish coat systems in areas such as;

- Heavy Industrial flooring.
- Commercial vehicle workshops
- Storage facilities
- Basement walls
- Manufacturing plants
- Food preparation areas
- Commercial laundries
- Food processing plants

SURFACE PREPARATION (Concrete Floors)

The preparation of concrete floors must be carried out to exact standards to ensure the long-term performance of the applied coating.

Surface preparation requirements can change dramatically due to the wide and varied conditions of new and existing floors. As a result, it is not possible to cover all preparation techniques within this Bulletin. Therefore, this Technical Bulletin must be read in conjunction with a separate Publication covering all preparation techniques.

All preparation for this system **must be** in accordance with Technical Guidelines, prepared by the International Concrete Repair Institute, Guideline Number 03732, January 1997. The guideline is entitled "**Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays**".

This guideline is available from International Concrete Repair Institute, 1323 Shepard Drive, Suit D Sterling VA 20164-4428, **phone** 703-450-0116, **fax** 703-450-0119, **email** concrepair@aol.com

This information has been summarized from "Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays"

This excerpt has been provided as indicative information only and is not complete. The complete Technical Guideline should be read in conjunction with this summary.

EPITEC EXAMPLE FOR SELECTING PREPARATION METHOD FROM CHART ONE FOR A FLOORING SYSTEM INCLUDING EPITEC AS THE SYSTEM PRIMER.

One coat Epitec primer. 62.5 mic D.F.T.
Two coats Epitec Epoxy Top-coat. 118.6 mic D.F.T.

Total D.F.T. **181.10 mic D.F.T.**

CHART ONE Coating to be Applied	Concrete Surface Profile (CSP)				
	CSP1	CSP2	CSP3	CSP4	CSP5
Sealers 0-3 mils (0-75micron)	√	√	√		
Thin Film 4-10 mils (100-250micron)	√	√	√		
High Build 10-40 mils (250-1000micron)			√	√	√

Reference - Technical Guidelines, International Concrete Repair Institute, Guideline Number 03732, January 1997. "Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays".

Preparation Method	Concrete Surface Profile (CSP)				
	CSP1	CSP2	CSP3	CSP4	CSP5
Detergent Scrubbing	√				
Low Pressure Water Clean	√				
Acid Etching	√	√	√		
Grinding	√	√	√		
Abrasive (sand) Blasting		√	√	√	√

Reference - Technical Guidelines, International Concrete Repair Institute, Guideline Number 03732, January 1997. "Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays".

The summary tables above provide the following information for the example 181.1 D.F.T. Epitec coating system.

The minimum requirements for preparation are CSP1, CSP2 and CSP3. However, the example Epitec system of 181.10 mic D.F.T. is at the high end of the (100-250 micron bracket) Therefore, the preparation method should be selected from either, acid etching, grinding and/or abrasive blasting or any other method that will achieve a surface profile of CSP2 or CSP3.

Again, this information is indicative only and the entire guideline should be read in conjunction with this technical bulletin.

EPI-TEC PRODUCT RANGE

Epi-tec Water Based Epoxy Non Skid.
Epi-tec Water Based Epoxy Gloss.
Epi-tec Water Based Epoxy Primer.

COLOUR RANGE

Available in light Base only.

Light Base can be "in store" tinted to most mid and light tone colours selected from the Astec Living Colour fan deck.

MIXING RATIO

1 : 1 by volume

POT LIFE

Useable 1 hour.

Although the mixed product will remain fluid for 3 to 4 hours the entire content should be used within **1 hour**. After 1 hour the product starts to partially set and therefore makes application difficult as a result of reduced flow and leveling.

RECOAT WINDOW

12 hrs minimum 24 hrs maximum.

PHYSICAL AND CHEMICAL PROPERTIES OF WATER BASED EPOXY PRIMER

Drying Mechanism	Chemical Cross-link Reaction, evaporation
Adhesion	high
Alkali Resistance	med - high
Resistance to vapour permeation	very high
Flexibility	low
Hydrostatic Pressure Resistance	345 to 414 kPa (50 to 60 psi) at total DFT 250-300 microns
Coefficient of Thermal Expansion	med - high
Chemical Resistance	excellent
Solvent Resistance (aged)	excellent
Abrasion Resistance	med
Heat Resistance	dry continuous (cured film) 110°C
UV Resistance	medium
Moisture Tolerance (during application)	medium
Cure Shrinkage	low
Accelerated Weathering	Good (slight chalking 1000 hrs U.V.A.)
Min application Temperature	5° C
Colour Range	Light tones only

PHYSICAL PROPERTIES

Gloss level	Matt
Drying Time @ 25°C (Touch Dry) (Dry)	1 to 3 hours 12 to 24 hours
Recoat Window	12 minimum - 24 hours maximum
Recommended Thinners	Thinning should not be required; however water can be used up to 10%
Pot Life	1 to 2 hours maximum
UN Number	None Allocated
Hazchem Code	None Allocated
Poisons Schedule	S5
D.G. Class	None Allocated
Solids by Volume (mixed)	37.5%
Specific Gravity (Part A)	1.594
Specific Gravity (Part B)	1.015
V.O.C. (mixed)	Does not exceed 125 gms/ltr

COVERAGE

Theoretical spread rate at required D.F.T (62.5 microns Dry)	6.0 m ² per ltr
Theoretical spread rate at 30 microns dry (Rates given are applicator and substrate dependent.)	12.50 m ² per ltr

NOTE: Do not apply in excess of 6.0 m² per ltr.

CHEMICAL RESISTANCE

CHEMICAL NAME	EFFECT / 100 RUBS / IMMERSION
Hydrochloric acid 10%	Slight Deterioration
Nitric Acid	Slight Deterioration
Sodium Hypochlorite 10%	No Deterioration
Sodium Hydroxide 10%	No Deterioration
Sea Salt Solution 5%	No Deterioration
Soap Solution	No Deterioration
Chlorine Gas	No Deterioration
Xylene	No Deterioration
Degreaser	No Deterioration
Toluene	No Deterioration
Methyl Ethyl Ketone	Slight Deterioration
Antifreeze	No Deterioration
Methanol	Slight Deterioration
Transmission Fluid	No Deterioration
Two Stoke Oil	No Deterioration
Brake Fluid	No Deterioration
Diesel	No Deterioration
Unleaded Fuel	No Deterioration
Paint Stripper (Alkaline)	Slight Deterioration

MIXING

Epi-tec Primer is a 2 part formulation and should be **thoroughly mixed for 1 minute** at a 1:1 ratio by volume just prior to using. Mixing must be done with a stand or drill mixer. Do not attempt to mix with a flat paddle.

APPLICATION

Epi-tec Primer can be applied with most application equipment such as; brush, spray ,rollers and rubber squeegees. For roll application the most suitable roller cover is a "Rota Cota Rolana All Paints Cover "

Ensure all equipment such as brushes, rollers and other painting utensils are clean and free of contaminant material prior to application.

During application, use a brush or small roller to cut into the edges. Coating should be performed out of direct sunlight and not during the hottest part of the day, early morning or late in the afternoon is preferable.

With the surface prepared, seal/prime the surface with one coat of Epi-tec Primer. Allow 6 to 12 hours for the primer to dry then apply first top-coat.

If applying more than one coat of primer, (usually not required), allow no less than 12 hours or no more than 24 hours between each coat. If re-coating is performed out of the maximum 24 hours, then the surface must be abraded and cleaned again.

Do not paint in direct sunlight or if rain is imminent. To ensure the substrate is dry tape down a 100cm by 100cm clear plastic piece with duct tape, if any condensation appears within two hours, the substrate is not ready for coating. Apply this test in several areas of the floor. Rain or moisture will cause slight blushing of the surface coating.

DRYING / RE-COATING

The system is a two-pack system with a pot life of approximately one to two hours, ensure all preparation is performed prior to mixing of Part A and B. If pot life has exceeded the specified time bracket the coating will be difficult to apply and the final system integrity may be affected. Do not use if the system has exceeded the specified pot life.

SAFETY / DISPOSAL

The system is based on water based epoxy coating and all equipment can be washed in water. Avoid repeated or prolonged exposure to skin or via inhalation. Use adequate ventilation when mixing and applying the system. Do not wash down the equipment to storm water or sewer system. Refer to Material Safety Data Sheet for further information before using the product.

Warranty

The technical data furnished herein is based upon data believed by Astec Paints to be true and accurate at the time of writing, however, no guarantee of accuracy is given or implied and is subject to change without notice. It is given in good faith for the assistance of users. No legal warranty expressed or implied is made as to its accuracy, completeness or otherwise. Every person dealing with this material herein does so at their own risk absolutely and must make independent determinations of suitability and completeness from all sources to ensure the products proper use. We have no control over the condition under which these products are stored, handled or used, therefore our recommendations must not be regarded as a mounting to legal warranty or as involving any liability on us.