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TECHNICAL DATA SHEET

UPS 402 EP Epoxy Coating

Two Component Solvent Free Epoxy Coating

UPS 402 EP Epoxy Coating is a high performance solvent free epoxy lining designed for use as a heavy duty chemical resistant coating for concrete and metal surfaces.

The **UPS 402 EP Epoxy Coating** offers exceptional application and film build enabling high film thickness in a minimum number of coats to product a system with a high degree of resistance to attack by aqueous chemicals and is uitable for the protection of concrete tanks, containment dykes, sewage treatment equipment, concrete channels below ground pipework, tank pad areas, storage pits etc.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Steel Surfaces - For immersion conditions, surfaces should be abrasive blast cleaned to a minimum Sa2½ BS7079 Part A1:1989 or equivalent. For other applications, particulary where blast cleaning is not practical, manual cleaning using needle gun, mechanical wire brush or grinder should be carried out. All oil and grease contamination must be removed using **UPS Universal Cleaner.**

Concrete & Porous Mineral Surfaces - Abrasive cleaning should be used to remove laitence and other loose powdery material taking care not to expose the aggregate. Surfaces should then be swept or vaccumed to remove any resultant dust and debris. Surfaces should now be sealed with **UPS 902 SP Primer** in accordance with the product tech sheet.

Non Porous Mineral Surfaces: Surfaces should be detergent cleaned to remove contamination and loose material then primed with **UPS 904 GP Primer** in accordance with the product tech sheet.

Existing Coatings: Any loose and flaking coatings should be chipped away. Firmly adhered coatings should be lightly abraded then detergent washed to remove loose dust and any grease or oil contamination. Surfaces should now be primed with **UPS 904 GP Primer** in accordance with the product tech sheet.

All prepared surfaces must be dry, concrete surfaces should have a maximum moisture content of 7%.

MIXING

UPS 402 EP Epoxy Coating is a two component material comprising base and activator components which must be mixed together prior to use.

Both components should be thoroughly stirred to incorporate any slight separation prior to mixing. Whilst continually stirring the base, the activator component should be slowly addes with mixing continuing until completely homogeneous.

After mixing fully, the material should be transferred to another container with the orginnal container scraped clean into this new container and further mixing then carried out to ensure complete incorporation.

The mixed material must be used within 45 minutes at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

Application should not be carried out at temperatures below 5°C nor when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.

UPS 402 EP Epoxy Coating can be applied by brush, roller or squeegee.

For roller or squeegee application, the UPS 162 EP Epoxy Coating should be spread evenly over the surface to give a film thickness of 250 microns (10 mil).

For brush application, a small test area should be carried out to establish a technique to ensure that the correct thickness us achieved. Even brush strokes should be used to give a uniform coating thickness.

All equipment should be cleaned IMMEDIATELY after use with **UPS Universal Cleaner.**

Theoretical Coverage Rate

4 m^2/litre at 250 microns dft (43 ft^2/litre at 10 mils dft)

Recommended Film Thickness

Wet 250 microns (10 mils)
Dry 250 microns (10 mils)

Detailed working recommendations are available from the Technical Centre on request.

PHYSICAL CONSTANTS

Mixing Ratio	2 parts base to 1 part activator by volume.	
Appearance	Base	Black thixotropic liquid
	Activator	Amber thixotropic liquid
Drying & Cure Times at 20°C	Usable Life	45 minutes
	Touch Dry	6 hours
	Minimum Overcoating	6 hours
	Maximum Overcoating	3 days
	Full Cure	7 days
Volume Solids	100%	
V.O.C.	Nil	
Shelf Life	Use within 5 years of purchase. Store in original sealed containers at temperatures between 5°C (30°F) and 30°C (86°F).	

PHYSICAL PROPERTIES

Abrasion Resistance ASTM D 4060	40 mgm loss per 1000 cycles - 1 kg load - CS17 wheel
Impact Resistance ASTM G14	2.6 joules (23 in/lbs)
Heat Resistance ASTM D648	120°C (248°F) – Dry 70°C (158°F) – Wet
Water Vapour Permeability ASTM D1653	1.55g.mm/m^2/24hrs
Salt Fog Resistance ASTM B117	Excellent, unaffected after 10,000 hrs exposure
Humidity Resistance BS 3900 Part F2	Unaffected 5,000 hrs exposure
Direct Pull Adhesion ASTM D4541	6.2Mpa (900 psi) – Steel 3.5Mpa (500psi) – Concrete (Concrete Failure)
Cathodic Disbondment ASTM G8	Pass <6mm (¼ inch)

HEALTH AND SAFETY

As long as normal good practice is observed **UPS 404 EP Epoxy Coating** can be safely used.

Protective gloves should be worn.

Vapour masks should be worn for spray application.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

PACKAGING

Supplied in 5 & 20 litre packs

COLOURS

Light Grey
Black

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