EPILOX HS

Solvent Free Epoxy Coating System

DESCRIPTION

Aftek Epilox HS is high performance, 100% solids, three component, and solvent free industrial epoxy coating system available in a range of colours. Epilox HS is designed for floor and wall applications where durability, chemical resistance and abrasion resistance are required.

RECOMMENDED USES

- As a low odour very hard wearing and chemically resistant finish coating for industrial, commercial and hygiene area subjected to rigorous cleaning or high wear
- As an abrasion and chemical resistant floor coating with or without non-skid properties
- An anti-graffiti coating for high traffic areas such as railway stations, car parks etc.
- As a mould and bacteria resistant hard finish for wash rooms, shower cubicles, canteen areas and food preparation areas
- As a high performance new construction or maintenance coating in the food and chemical industries such as…
    - Hospitals
    - Schools
    - Pharmaceutical industries
    - Kitchens
    - Abattoirs
    - Dairies
    - Canneries
    - Wineries
    - Warehouse floors
    - Aviation hangers
    - Factory floors
    - Showroom floors
- As a finish coating in areas requiring seamless flooring
- As a chemical and protective coating over Penafloor Tuff Top

FEATURES AND BENEFITS

- 100% Solids Epoxy
- Can be used as a wall, ceiling and floor surface coating
- Non-flammable, negligible odour and toxicity
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibre board and stone
- Resists mildew, mould and bacterial growth
- Withstands steam and chemical cleaning
- Aged coating may be recoated with minimal re-surface preparation
- Easy graffiti removal from cured finish
- Available in a selected range of colours (Consult colour chart)
- Non taint
- Australian Made
- Low VOC
- Slip Resistance to AS/NZ 4586-1999
- Able to achieve R10-R13 depending on anti- slip grit used
- Abrasion Resistant
- Environmentally friendly

APPLICATION INSTRUCTIONS

Surface Preparation-

All surfaces to be treated must be thoroughly cleaned free from all loose or flaky paint and must be free of all grease, oil, dirt, dust or other surface contaminants. Any efflorescence or laitance must be removed from new concrete by abrasive blast cleaning, high pressure water washing or mechanical scrubbing or grinding.
Acid etching or cleaning should be avoided due to the risk of acid penetration.
For all old concrete and over worked, steel trowel finishes grinding is recommended to remove all contaminants.
For very dense non- absorbent concrete, light sanding is recommended prior to application of Epilox HS.
Note: new concrete should be allowed to cure for 28 days prior to coating application unless Primeseal MC a vapour barrier is used prior to application. Primeseal MC should be applied as per instructions and allowed to dry for a minimum of 24 hours prior to application of Epilox HS.

Priming-

Epilox HS does not normally require priming prior to application; however, if the concrete substrate is porous a primer coat of Epilox Binder must be applied. This should be followed by two consecutive coats of Epilox HS. To determine the porosity of the concrete, pour some water over the substrate and observe the absorption rate. (i.) If the water is soaked into the concrete within 3 minutes of application then the substrate is porous. (ii.) If the water sits on the surface and forms a pool for greater than 3 minutes the substrate is non-porous. If the concrete is non-porous (dense) then a light sanding or grinding as per above application instructions can be applied. Ensure adequate surface preparation is conducted prior to application of Epilox HS.

Mixing-

Mixing should be by means of a mechanical forced action mixer with a high shear stirrer.
a. Pre-mix each individual component until homogeneous.
b. Combine the two components together in the ratio 2 parts by volume resin (Part A) to 1 part by volume hardener (Part B). Mix ratio 2:1 and add the appropriate colour pack

For a 4.3L kit add:	1 x 500gm colour pot
For a 15L kit add:	3 x 500gm colour pot
	OR
	1.5 kg colour pot

Mix thoroughly for a minimum of 5 minutes until again homogeneous.
Avoid trapping air during mixing (mixing paddle is recommended) this may cause pin holing in the coating during application.
Do not mix part kits as this may affect the mix ratio and result in a softer film build and weak coating.
Do not mix large quantities of material than can be used within the setting time.

APPLICATION

Placing-

Applying with a brush or roller, ensure to work the material into the substrate surface to fill voids and eliminate pin holing. Successive coats should be applied at right angles to the previous coat.
Use lamb's wool or mohair long nap roller approximately 8-10mm.
It is recommended that as application progresses, the coating depth be tested at random points with a wet film gauge/ comb to check film thickness is achieved. The film thickness should be 200-250 microns thick per coat.
Total dry film thickness will be 400-500 and must be applied in two (2) coat applications.

EPILOX GRIT (COVERAGE)	
Fine Grit	60 m2 per 20kg bag
Medium Grit	40 m2 per 20kg bag

COVERAGE EPILOX HS		COVERAGE	COVERAGE PER 4.3 LITRE KIT	COVERAGE PER 15 LITRE KIT
Smooth Surface	First Coat	5 - 7 m2/ litre	21.5 – 30m2	75 – 105m2
	Second Coat	7 - 8 m2/ litre	30 – 34m2	105 – 120m2
Rough Surface	First Coat	4 - 5 m2/ litre	n/a	
	Second Coat	5 – 6 m2/ litre	n/a	
A minimum of two (2) coats is recommended in all cases				

To obtain a textured, skid resistant floor coating surface, it is recommended that Epilox Grit is broadcast on the first coat of Epilox HS whilst still wet. Allow then to dry for a minimum of six (6) hours) or when tack free, remove excess Grit. Remove any residual Epilox Grit by vacuuming and a second coat of Epilox HS applied over the first coat ensuring the Epilox Grit is fully encapsulated. Refer to specific application for non-slip or texture finish.

COLD SUBSTRATES & COOL CLIMATE CONDITIONS

- Epilox HS cure rates will be dramatically reduced if substrate surface or ambient temperature is below 10˚C
- If Epilox HS is applied in cold or cooler climatic conditions, substrate temperatures can produce amine blush, resulting in an oily residue and/ or areas or uncured tacky discolouration (usually off white or yellow)
- If amine blush or any other form of surface contamination or discolouration appears on the coating, Epilox HS should be allowed to cure and
- Ensure thorough removal of contamination prior to the application of any further coating. Failure to perform this procedure will result in delamination between coatings
- Allowing the product to stand for approx. 5 mins after mixing will assist in accelerating the drying reaction
- Store the Epilox HS in a 20˚C environment 24 hours prior to use
- In cold climates, if possible warm the substrate surface area where Epilox HS is to be applied by air blower or use a blower after application
- Always provide adequate ventilation during the curing cycle
- Exposure to water prior to full cure may result in a slight discolouration or white stain on surface. This may easily be removed by cleaning the surface with a suitable cleaner. Contact Aftek for additional information.
- Do not apply to exterior applications exposed to direct sunlight
- Epilox HS should not be applied to any surface subject to hydrostatic pressure or back water pressure- this may result in delamination of coating

TYPICAL PROPERTIES	
Colour/ s	Range of colours to AS2700 including Clear- refer to colour chart
Appearance	Free flowing liquid
Finish	Gloss
Mixing Ratio	2:1 by volume Resin/Hardener (+ appropriate colour pack to suit kit size)
Volume Solids	100%
Weight Solids	100%
Dry Film Thickness (2 coat application)	400-500 microns
Pot Life	Approx. 45 mins @ 25˚C (4.3 litre kit)
Tack Free Time	4-6 hours at 25˚C
Specific Gravity	Approx. 1.05 (Clear) @ 25˚C Approx. 1.15 (Coloured) @ 25˚C with colour pot
Viscosity	Approx. 1000cps
Re-coat time	8-24 hrs @ 25˚C and 50% RH (depending on substrate or when tack free)
Full Cure	7 days @ 25˚C, 50% RH
Foot Traffic	24 hrs @ 25˚C
Vehicle Traffic	72 hrs @ 25˚C
*Allow 5-7 days to cure prior to chemical exposure or abrasion	

CHEMICAL RESISTANCE *	
Chemicals	**Resistance to Spillages**
Citric Acid 100%	Excellent
Acetic Acid 5%	Excellent
Sodium Hydroxide 30%	Excellent
Diesel Fuel/ Petrol	Excellent
Sugar Solutions	Very Good
Tartaric Acid 100%	Very Good
Hydrocarbons 25%	Very Good
Phosphoric Acid 25%	Very Good
Lactic Acid 5%	Very Good
*Resistant to Spillages	
Surface staining may result from exposure to some aggressive chemicals. All spills should be quickly removed and washed. Over exposure may result in surface degradation	

COLOURS AVAILABLE	
Colours	**Australian Standard AS2700 Code Colour**
Clear	n/a
Light Grey Blue	B44
Mid Grey	N52
Graphite Grey	N65
Beige	X43
Koala Grey	N45
Basalt	N54
Silver Grey	N24
Storm Blue	B55
Light Grey	N35
Golden Yellow	Y14
Red Oxide	R63
Shamrock	G23

PACKAGING

Epilox HS is available in 4.3 litres and 15 litre kits.
4.3 litres- item no. 414375
15 litres- item no. 414376

STORAGE-SHELF LIFE

Store between 10˚C and 30˚C away from direct sunlight. Shelf life is 12 months in original unopened container. Partly used containers must be sealed tight when not in use.

CLEAN UP

Wash all equipment in Epilox Thinners immediately on completion of application and mixing.

SAFETY PRECAUTIONS

Refer to MSDS for more details on this product.

FIRE

This product is non-flammable and poses no fire risk.

HEALTH AND SAFETY

Avoid contact with skin. Protective gloves and clothing are recommended when mixing or using this product. Please refer to full MSDS (material safety data sheet) for this product, which is available from Aftek upon request or through www.aftek.com.au

PRECAUTIONS

- Do not apply if the surface temperature is below 10˚C or near 10˚C and falling or above 35˚C or above 85% relative humidity
- In enclosed areas, such as tank internals or reservoirs, ventilation should be provided.
- Do not dilute with solvents or water
- Discard any material which has exceeded the pot life or working time of the product
- Will discolour to form a light yellow film in the presence of UV light
- Allow to cure for a minimum of 24 hours at 25˚C/ 50% RH before applying adhesives, mortars, decorative coatings or other surface treatments
- Do not apply over any substrates that have been previously treated or coated with curing compounds, PVA concrete bonding agents or acrylic coatings. These areas must be mechanically cleaned by grinding or shot blasting to produce a contamination free surface

TECHNICAL SUPPORT

Aftek manufactures a comprehensive range of high quality and performance construction products. In addition, ITLS offers technical support and on-site advice to specifiers, end users and contractors.

Please contact your ITLS-Aftek sales representative or Head Office for this service.

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