

# Epo Shield HP180

Industrial grade high performance anti-slip epoxy floor coating

## DESCRIPTION

Epo Shield HP180 is a non-slip epoxy flooring system, applied as a 3 or 4 part system for on site application. Epo Shield HP180 is designed for use in a number of industrial, commercial and retail situations where a long lasting R12 - R13 anti-slip, easy to clean, chemical and abrasive resistant flooring system is required.

This system delivers a hard wearing, extremely hygienic, chemically resistant coloured floor which is durable, and easy to clean.

## PRODUCT FEATURES & BENEFITS

- Non-flammable
- 100% solids epoxy
- Environmentally friendly “Green Building” low VOC compliant
- Good chemical and abrasive resistance
- Produces a high build industrial wear coating
- Excellent adhesion qualities
- Negligible odour
- Can be applied from 1 - 5mm
- Provides gloss finish
- Coloured, available in a wide variety of colours

## TYPICAL APPLICATIONS

- As a high performance new or maintenance coating.
- As a low odour, hard wearing, abrasion and chemical resistant floor coating.
- Ideal for use in commercial kitchens, abattoirs, butchers, breweries, dairy and cold meat packaging, fish, vegetable, soft drink and meat processing plants, industrial facilities and manufacturing.

## VOC RATING

### TESTED UNDER THE REQUIREMENTS OF:

### IEQ 13 VOLATILE ORGANIC COMPOUNDS “GREEN STAR TECHNICAL MANUAL”.

TVOC’s calculated as the sum total of the VOC’s of each individual raw material component.

The total VOC is	White or Colour	79.61 grams/ litre of ready to use product.
	Clear	79.61 grams/ litre of ready to use product.

## APPLICATION RATE

A 16ltr kit of mixed resin will cover approximately 16m<sup>2</sup> @ 1mm thick.

## PACK SIZES

Epo Shield 100 is available in 60ltr,30ltr and 10ltr containers, Epo Filler is available in 12kg drums, CONPELL 800 aggregate is available in 20kg bags.

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## PERFORMANCE PROPERTIES

APPEARANCE	FREE FLOWING LIQUID
COLOUR	COLOURED
FINISH	GLOSS
VOLUME SOLIDS	100%
WEIGHT SOLIDS	100%
<b>Cure Times</b>	
FOOT TRAFFIC	24 HOURS @ 25°C/50%RH
VEHICULAR TRAFFIC	72 HOURS @ 25°C/50%RH
FULL CURE	7 DAYS @ 25°C/50%RH
MIXING RATIO	2:1 BY VOLUME

## PREPARATION

- All surfaces to be coated must be structurally sound and free of all previous coatings, adhesives, efflorescence or laitance by abrasive blasting, high pressure water blasting, mechanical scrubbing or other means.
- All surfaces to be coated must be free of all dirt, grease, oil or other surface contaminants.
- All holes, non-structural cracks and surface deformities should be repaired prior to the application of Epo Shield HP180.
- Ensure recoat times are adhered to between applications, a minimum of 12 hours is required between coats at temperatures above 25°C.

## PRIMING

- Apply primer before the application of Epo Shield HP180.
- Apply 1 - 2 coats of Epo Shield 100 or Epo Shield 100 Rapid and allow to cure.
- The concrete substrate must be completely sealed before applying Epo Shield HP180.

## MIXING (High build 2 - 5mm flooring system, using the Epo Shield HP180 flooring system)

1. Mixing should be by means of mechanical forced action mixer with a high speed shear stirrer.
2. First pre-mix each individual component to form a homogeneous paste.
3. Mix all of Epo Shield 100 part A thoroughly with the colour pack as required.
4. Join the two components together by adding 2 parts, Epo Shield 100 colour part A RESIN to 1 part, Epo Shield 100 part B HARDENER by volume, mixing thoroughly for a minimum of 5 minutes until a homogeneous paste is obtained.
5. Mix in part C (Epo Shield filler) for a further 3 minutes ensuring that the combined components are well blended, at a rate of 1 litre of mixed resin to 1 kg of filler.
6. Avoid trapping air during the mixing process as this may cause pin holing in the coating during application, only mix as much product as can be used within the pot life of the product.

Note: Ensure the mixture is mixed correctly, there should be no colour streaking, then scrape the sides of the mixing vessel to ensure there is no unmixed material.

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## PLACING

1. Pour the mixed material on to the primed floor, apply in a uniform manner ensuring an epoxy depth of 1.50-2.0mm. Evenly spread the material using a notched trowel, pinned screed or notched blade. Avoid pin holing.
2. Immediately spike roll to expel any air that may have been trapped during mixing and placing.
3. Broadcast the selected CONPELL 800 aggregate until saturation, ensuring the entire surface is filled with aggregate.
4. It is recommended during application that the coating depth be tested at random points with a wet film gauge/comb. Once cured, remove excess broadcast material using a broom or industrial strength vacuum.
5. Apply 2 coats of Epo Shield 100 colour with the second coat at right angles to the first.
6. Allow the surface to cure for a minimum of 24 hours before subjecting to pedestrian traffic, allow 72 hours before allowing vehicular traffic or chemical cleaning.
7. Full cure in 7 days.

## MIXING (roll coat system 1mm, using Epo Shield 100 colour)

1. Mixing should be by means of mechanical forced action mixer with a high speed shear stirrer.
2. First pre-mix each individual component to form a homogeneous paste.
3. Mix Epo Shield 100 white part A RESIN thoroughly with the colour pack as required.
4. Join the two components together by adding 2 parts, Epo Shield 100 colour part A RESIN to 1 part, Epo Shield 100 part B HARDENER by volume, mixing thoroughly for a minimum of 5 minutes until a homogeneous paste is obtained.
5. Avoid trapping air during the mixing process as this may cause pin holing in the coating during application.

Note: Ensure the mixture is mixed correctly, there should be no colour streaking, then scrape the sides of the mixing vessel to ensure there is no unmixed material.

## PLACING

1. Pour the mixed material on to the primed floor, apply in a uniform manner, evenly spreading the material using a squeegee, brush and roller (recommended application rate of 3m<sup>2</sup>/litre).
2. Avoid pin holing.
3. Broadcast the selected CONPELL 800 aggregate until the entire surface is filled with aggregate.
4. It is recommended during application that the coating depth be tested at random points with a wet film gauge/comb.
5. Once cured, remove excess broadcast material using a broom or industrial strength vacuum.
6. Apply 2 coats of Epo Shield 100 colour with the second coat at right angles to the first.
7. Allow the surface to cure for a minimum of 24 hours before subjecting to pedestrian traffic, allow 72 hours before allowing vehicular traffic or chemical cleaning.
8. Full cure in 7 days.

## CLEAN UP

Wash all equipment with xylene immediately on completion of application and mixing.

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## PRECAUTIONS

- Some individuals may experience a skin reaction to Epo Shield HP180. Use appropriate protection equipment. Refer to our Material Safety Data Sheet for further information.
- Do not apply to steel or metal surfaces as corrosion may occur.
- In enclosed areas ventilation should be provided during the coatings curing cycle to allow for adequate evaporation of the coating.
- Epo Shield HP180 will yellow and/or chalk when exposed to UV light.
- Discard all material that has exceeded the products recommended pot life or working times.
- Epo Shield HP180 is a coating, not a water proofing membrane.
- Do not apply Epo Shield HP180 over any existing coating or concrete treatment such as curing compound or release agents. All contaminants must be removed prior to the application of Epo Shield HP180.
- Apply Epo Shield HP180 between 10°C - 35°C. Do not apply above 75% humidity.

Contact the manufacturer if one or more of the following conditions exist:

- The substrate is subject to hydro static pressure or rising damp.
- The substrate is chalky or dusting.
- Ambient or substrate temperatures are below 10°C.
- The finished floor will be subject to chemical attack (including hot chicken fats).

## APPLICATION TO COLD SUBSTRATES OR DURING COLD CLIMATES

- Epo Shield HP180 cure rates are dramatically reduced when applying to a substrate surface or ambient air temperature below 10°C.
- Applying Epo Shield HP180 to cold substrates or during cold climates can cause amine blush, resulting in an oily residue and or areas of uncured tacky discolouration.
- If the above occurs or any other surface contamination or discolouration appears on the coating, the Epo Shield HP180 should be allowed to cure and then washed with fresh clean water, methylated spirits or xylene depending on the severity of the amine blush.
- Ensure total removal of all contamination prior to the application of any further product.
- Any failure to follow the above procedure will result in delamination between coats.
- Strictly follow all mixing instructions.
- Allow mixed product to sit for five minutes to assist in accelerating the drying reaction.
- Do not apply thin coats as rapid moisture loss will arrest or slow the drying reaction.
- Always provide adequate ventilation during the curing cycle.

## STORAGE

- Keep Epo Shield HP180 stored in a dry area, away from direct sunlight & frost.
- Store between 10°C & 30°C.
- Epo Shield HP180 has a shelf life of 12 months in an unopened container.
- Ensure partly used drums are correctly sealed.

## FIRE

Product is non-flammable and poses no fire risk.

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## SAFETY PRECAUTIONS

- Wear appropriate protective equipment, including clothing, gloves, appropriate respiratory mask and goggles.
- If poisoning occurs, contact doctor or Poisons Information Centre.
- If contact with skin occurs, remove contaminated clothing and thoroughly wash skin.
- If swallowed do not induce vomiting, give a glass of water.
- If in eyes, hold eyes open and flood with water for at least 15 minutes then see doctor immediately.
- For further information refer to the relevant Material Safety Data Sheet.

## WARRANTIES

CONPELL offers warranties when their systems are applied by accredited applicators. Please contact manufacturer for further information.

## IMPORTANT INFORMATION

The information and recommendations relating to Epo Shield HP180 are given based on current knowledge and experience. Due to variances in material substrates and site conditions no warranties implied by law or, fit to purpose of the product can be implied. We accept no responsibility for loss or injury due to the incorrect handling or improper use of the product, limiting the cost of our liability to the replacement product cost only. Always refer to current Product Technical Data Sheets

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