

Epo Shield 100

Solventless clear or coloured roll coat epoxy flooring system

DESCRIPTION

Epo Shield 100 is a two component high build, premium grade solventless epoxy roll coat flooring system designed to achieve a high quality finished surface. Epo Shield 100 has good chemical and abrasive resistance. Epo Shield 100 is designed to be applied to achieve a finished surface depth of 250 - 500 microns over 2 coats and is ideal for commercial or decorative floors.

Epo Shield 100 is available in clear or colour (colour is achieved by adding 1 x 500mls colour pack per 9.50ltr of mixed Epo Shield 100). 2 colour packs may be required for light colours. Contact manufacturer for further information.

PRODUCT FEATURES & BENEFITS

- Non-flammable
- 100% Solids epoxy
- Good chemical and abrasive resistance
- With fillers added, will produce a high build industrial wear coating
- Excellent adhesion qualities
- Negligible odour
- Adheres to most substrates including, masonry and compressed fibre board .
- Provides a high gloss finish
- Can be coloured

TYPICAL APPLICATIONS

- As a high performance new or maintenance coating.
- As an abrasion and chemical resistant floor coating.
- As a high performance wear coat for areas subjected to high volumes of vehicular traffic.
- As a low odour hard wearing and chemically resistant floor coating for industrial & commercial hygiene areas subjected to rigorous cleaning.

VOC RATING

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

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

APPLICATION RATES

Primer	6-8m²/litre/coat
Decorative floor finishes	6-8m²/litre/coat
Industrial floor finish	4-6m²/litre/coat

PACK SIZES

Epo Shield 100 is available in 600ltr, 60ltr, 30ltr and 10ltr kit sizes.

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PERFORMANCE PROPERTIES

APPEARANCE	FREE FLOWING LIQUID
COLOUR	CLEAR OR COLOUR
FINISH	GLOSS
VOLUME SOLIDS	100%
WEIGHT SOLIDS	100%
SPECIFIC GRAVITY	APPROX 1.05 @ 25°C
RE-COAT TIME	OVERNIGHT AT 25°C, 50%RH
POT LIFE	APPROX 45 MINUTES @ 25°C
VISCOSITY	APPROX 1000cps
FULL CURE	7 DAYS @ 25°C/50%RH
MIXING RATIO	2:1 BY VOLUME

SURFACE PREPARATION

- All surfaces to be coated must be structurally sound and free of all previous coatings, adhesives, efflorescence or laitance by abrasive blasting, mechanical grinding or scarifying.
- The concrete substrate must be cured for a minimum of 28 days,
- The surface to be coated must have a minimum comprehensive strength of 25MPa and a surface tensile strength of 1.5MPa .
- All surfaces to be coated must be free of all dirt, grease, oil or other surface contaminants.
- All holes, cracks and surface deformities should be repaired prior to the application of Epo Shield 100.
- Ensure re-coat times are adhered to between applications, a minimum of 12 hours is required between coats at temperatures above 25°C.

MIXING

1. Only mix enough product that can be applied with the working time of the product. (The working time will be affected by the temperature).
2. **Mixing should be by means of mechanical forced action mixer** at a speed of 500rpm.
3. **First premix each individual component to form a homogeneous paste.**
4. If required add colour pack/s to the resin and mix until a homogeneous paste is achieved, minimum 1 minute.
5. **Join the two components together by adding 2 parts Part A RESIN to 1 Part, Part B HARDENER, mixing thoroughly for a minimum of 2-3 minutes until a homogeneous paste is obtained.**
6. **Avoid trapping air during the mixing process as this may cause pin holing in the coating during application.**
7. Ensure to move the mixing paddle around the outside of the container to ensure there is no unmixed product .
8. The unmixed containers should be kept at 20 - 25°C prior to starting the mixing process, overly hot or cold product may affect the working time of the product, or cause issues to the finished surface such as amine bloom or blushing.

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PLACING Smooth finish

1. If a primer is being used apply CONPELL TF100 using a squeegee and medium nap roller at a coverage rate of 6-8 m² per litre depending on the substrate. Allow to cure for a minimum of 12 hours or overnight, do not leave longer than 36 hours.
2. Apply the first coat of Epo Shield 100 using a squeegee and medium nap roller at a coverage rate of 4 -6 m² per litre. Allow to cure for a minimum of 12 hours or overnight.
3. Apply the second coat of Epo Shield 100 using a squeegee and medium nap roller at a coverage rate of 4 -6 m² per litre. Allow to cure for a minimum of 72 hours before use by pedestrian traffic and 7 day before allowing use by vehicular traffic or any chemical cleaning.
4. It is recommended during application that the coating depth be tested at random points with a wet film gauge/comb.

NON-SLIP FINISH

5. Apply the Epo Shield 100 as above, broadcast the required anti-slip aggregate in an even manner onto the first coat while it is still wet and allow the coating to cure for a minimum of 12 hours or overnight. During this process spiked shoes are recommended.
6. Once cured remove excess broadcast material using a broom or industrial strength vacuum.
7. Apply the second coat as above at right angles to the first.
8. Allow the surface to cure for a minimum of 72 hours before subjecting to pedestrian traffic, allow 7 days before allowing vehicular traffic or chemical cleaning.
9. Full cure in 7 days.

AGGREGATE SIZE

CA100 - 100 mesh - R10, R11
CONPELL 600, CA36 - 36mesh - R12
CONPELL 800, CA24 - 24 mesh - R13

CLEAN UP

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

PRECAUTIONS

- Some individuals may experience a skin reaction to Epo Shield 100. 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 curing of the coating. Epo Shield 100 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 100 is a coating, not a water proofing membrane.
- Do not apply Epo Shield 100 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 100.
- Apply Epo Shield 100 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).

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PRECAUTIONS

- **Epo Shield 100 cure rates are dramatically reduced when applying to a substrate surface or ambient air temperature below 10°C. Applying Epo Shield 100 to cold substrates or during cold climates can cause amine blush, resulting in an oily residue and/or areas of uncured tacky discoloration.**
- **If the above occurs or any other surface contamination or discoloration appears on the coating, the Epo Shield 100 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 100 stored in a dry area, away from direct sunlight & frost.
- Store between 10°C & 30°C.
- Epo Shield 100 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.

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 100 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.

CONPELL

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