High Build, thixotropic, solventless epoxy coating system for floors and walls

#### DESCRIPTION

Epo Shield 108 is a two component high build, solvent free, paste like roll coat epoxy system designed to be used on both floors and walls as an easy to clean, chemical and abrasive resistant coating.

The Epo Shield 108 hardener is added to Epo Shield 100 Resin to produce a high build roll coat epoxy flooring system that easily covers aggregates required for an R12-R13 anti-slip floor finish. It is also ideal for coating walls as it has excellent slump resistance when applied to vertical surfaces. Epo Shield 108 hardener can also be mixed 50/50 with Epo Shield Rapid hardener prior to adding to the Epo Shield 100 Resin to create a fast curing R10-R11 anti-slip finish. The Epo Shield 108 flooring system is available in a range of colour options, colour is achieved with colour packs added, 1 x 500mls per 6.17ltr of Resin. (2 x 400ml colour packs are required for light colours, contact manufacturer for further information).

#### **PRODUCT FEATURES & BENEFITS**

- Non-flammable
- 100% Solids epoxy provides up to 660 microns DFT (two coat application)
- Good chemical and abrasive resistance
- Excellent adhesion qualities
- Negligible odour, can be used in built up areas, Meets "Green Star Build" Code
- Extremely good wear resistance
- Can create accelerated cure times with the addition of Epo Shield Rapid hardener
- Provides a high gloss finish
- Excellent slump resistance when applied to vertical surfaces
- Ideal for surfaces that require an R12, R13 finish with the addition of selected aggregates

### TYPICAL APPLICATIONS

- As a high performance new or maintenance floor or wall coating.
- As an abrasion and chemical resistant floor coating.
- As a top coat to high build, anti-slip flooring.
- As a low odour hard wearing, chemically resistant floor and wall coating for industrial. commercial hygiene areas subjected to rigorous cleaning.
- Excellent slump resistance, Ideal for painting coves and walls.
- As a high build roll coat floor leaving an R10, R11 finish without the addition of aggregates,

# **VOC RATING**

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 RATES                   | PRIMER           | BASE COAT       | TOP COAT         | TOP COAT       |
|-------------------------------------|------------------|-----------------|------------------|----------------|
| Industrial wall finishes            | 6 - 10 sqm/litre | 6 -10 sqm/litre | 6 - 10 sqm/litre |                |
| R10 - R11 roll coat finish          | 6 - 8 sqm/litre  | 5 - 6 sqm/litre | 5 - 6 sqm/litre  |                |
| High build R12/R13 roll coat finish | 6 - 8 sqm/litre  | 3 - 5 sqm/litre | 4 - 6 sqm/litre  | 4 -6 sqm/litre |

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#### PACK SIZE

Epo Shield 108 is available in 57.00, 28.50 & 9.50 litre kit sizes.

#### PERFORMANCE PROPERTIES

| APPEARANCE       | FREE FLOWING LIQUID WHEN MIXED WITH RESIN |  |
|------------------|---|--|
| COLOUR           | CLEAR RESIN, PUTTY COLOURED HARDENER      |  |
| FINISH           | GIOSS                                     |  |
| 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

- **A**ll 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.
- All newly placed concrete must be allowed to cure 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 108
- Always apply a primer coat of Epo Shield WB before apply Epo Shield 108 to walls.
- Ensure re-coat times are adhered to between applications, a minimum of 12 hours and a maximum of 36 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 the required 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 2 3 minutes until a homogeneous paste is obtained.
- 6. When adding RAPID hardener to the 108 hardener, always mix the hardeners together first prior to adding the mixed hardener to the RESIN component.
- 7. Avoid trapping air during the mixing process as this may cause pin holing in the coating during application.
- 8. Ensure to move the mixing paddle around the outside of the container to ensure there is no unmixed product.
- 9. 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. It is ideal to store the product at 20 25°C to help avoid problems such as amine bloom or blushing. It is not recommended to apply cold product in a warm environment

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#### **PLACING**

- 1. Apply primer CONPELL TF100 using a squeegee and medium nap roller at a the covergare rate specified, 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 108 using a squeegee and medium nap roller at the coverage rate specified, broadcast the required anti-slip aggregates in an even manner onto the surface 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.
- 3. Once cured remove excess broadcast material using a broom or industrial strength vacuum.
- 4. Apply a second (and third coat if required) as outlined above.
- 5. 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.
- 6. Full cure in 7 days.
- 7. Slip resistance is dependant on the size of the aggregate used

#### AGGREGATE SIZE

R10 - CA60 R11 - CA40 R12 - CA36 R13 - CA24

#### **CLEAN UP**

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

### **PRECAUTIONS**

- Some individuals may experience a skin reaction to Epo Shield 108. 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 108 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 108 is a coating, not a water proofing membrane.
- Do not apply Epo Shield 108 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 108.
- Apply Epo Shield 108 between 10°C 35°C, or if humidity is above 75%.

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 108 cure rates are dramatically reduced when applying to a substrate surface or ambient air temperature below 10°C. Applying Epo Shield 108 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 108 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 proceedure will result in delamination between coats
- Strickly follow all mixing instructions
- Always provide adequate ventilation during the curing cycle

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#### **STORAGE**

- Keep Epo Shield 108 stored in a dry area, away from direct sunlight & frost.
- Store between 10°C & 30°C.
- Epo Shield 108 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 108 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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