

Technical Data Sheet

PES-CHEM 577 Chem Screed – Chemical-Resistant Solvent-Free Epoxy Repair Mortar

PES-Chem 577 Chem Screed is a chemical-resistant, epoxy resin-based, solvent-free high-build trowel screed. The product has been designed to be applied to uneven concrete surfaces subject to chemical attack from strong industrial chemicals. The material can be applied at a wet film thickness of 3/8" - 1 1/4". On curing the product will resist 98% sulphuric acid, 36% hydrochloric acid, and 75% phosphoric acid.

- High-strength and hard-wearing
- Ideal for forklifts, heavy traffic areas, chemical process surfaces

Typical applications

Ideal for rebuilding problematic cementitious surfaces in chemical process areas such as floors, plinths, concrete structures, chemical boxes, etc.

Surface Preparation

Existing Concrete

1. If the concrete surface is contaminated, pressure wash using clean water.
2. Once the concrete is dry, lightly abrasive-blast or scarify taking care not to expose the aggregate.
3. Clean all dust and debris from the surface.

New Concrete

1. Allow new concrete to cure for a minimum of 21 days and treat to remove any surface laitance.
2. Check the moisture content of the concrete before coating (8% moisture content or below).
3. Lightly scarify the surface taking care not to expose the aggregate.
4. Clean all dust and debris from the surface.

Prime all surfaces with PES-Chem 577 Chem Screed Primer

1. Ensure all concrete surfaces are primed before applying 577 Chem Screed.
2. Apply PES-Chem 577 Chem screed primer to the repair surface using a brush or roller.
3. Apply PES-Chem 577 Chem screed primer at a wet film thickness of 6mils.
4. Leave to cure for a minimum of 30 minutes and a maximum of 3 hours at 68°F. The primer must be wet/tacky to the touch when overcoating with PES-Chem 577 screed.

Mixing

PES-Chem 577 Chem Screed consists of several components, 1 x primer base, 1 x primer activator, 1 x base resin, 1 x activator resin, and natural or grey-colored aggregate.

Before mixing, please ensure the following:

1. The base component is at a temperature between 60-77°F.
2. The ambient & surface temperature is above 50°F.
3. The ambient & surface temperatures are not less than 6°F above the dew point.

Once these 3 checks have been met, please proceed with mixing the product.

1. Pour the 577 Chem Screed Activator into the 577 Chem Screed Base container.
2. Ensure all of the material is thoroughly mixed and streak free, pay attention to the sides and bottom of the container.
3. Once mixed, pour the contents of the mixed resin product into the large 5-gallon (20-liter) container provided.
4. Add 50% of the natural or grey-colored aggregate to the resin mix. Use an electric drill and mixing paddle to mix the material.
5. After 2 minutes of mixing add the remaining natural or grey-colored aggregate.
6. Mix all of the components until you have a consistent streak-free mixture.
7. Please ensure you pay attention to the bottom and sides of the mixer and ensure all of the contents are mixed properly.



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PLEASE NOTE:

In colder climates or when the product is being applied to concrete surfaces lower than 50°F, add 75% of the aggregate and check the consistency of the mix. Colder temperatures will thicken the resin; therefore, less aggregate is required to create a trowel-applied product. Just add part of the remaining 25% of the aggregate to create the correct level of consistency.

Application

1. Once you have the correct consistency, empty the mixed resin's contents onto the floor.
2. Spread the screed with a trowel or rubber squeegee, then smooth off to the correct level.
3. Once the repair area has been filled with material spray clean water onto the face of the trowel and skim the surface of the repair. This will give 577 Chem Screed a smooth finish.

Coverage Rates

3.68 US gallon (30kg/ 13.9ltrs) of fully mixed product will give the following coverage rates –

23.6ft² at 1/4" (2.78m² at 5mm)

11.8ft² at 1/2" (1.39m² at 10mm)

7.9ft² at 3/4" (0.695m² at 20mm)

(848.2 in³ / 0.014 m³ per 45kg unit)

Please note that the coverage rates quoted are theoretical and do not take into consideration the profile or condition of the surface being repaired.

Cure Times

At 68°F the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:

Usable Life	25 minutes
Hard Dry	6 hours
Minimum Over Coating	6 hours
Maximum Over Coating	24 hours
Foot Traffic	24 hours
Forklift Traffic	48 hours

Pack Sizes

This product is available in the following pack sizes –
30kg/ 13.9ltrs (3.68 US gallons)

Color

3-Component System
Base Component- Grey
Activator Component- Amber
Aggregate- Light grey

Over-coating times

Minimum - the material can be over-coated as soon as it is touch dry, approximately 6 hours at 68°F.
Maximum – 24 hours



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Storage Life

5 years if unopened and stored in normal dry conditions (60-86F°)

Other Technical Documents

Safety Data Sheets	-	Base & Activator components
Product Specification Sheet	-	Technical Performance Information

Health and Safety

Please ensure good practice is always observed. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed Safety Data Sheet.

Legal Notice:

The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine if the product is suitable for use. PES accepts no liability arising out of the use of this information or the product described herein.