

TECHNICAL DATA SHEET

UPS 813 EQS EPOXY QUARTZ SCREED



UPS 813 EQS Epoxy Quartz Screed is a solvent free high build epoxy resin repair mortar for use on concrete flooring.

The product has been designed to be applied to uneven concrete surfaces at a wet film thickness of 10-30mm. (3/8"-1 1/4"). on curing the product will ensure any imperfections on the surface of the concrete are reduced.

Product Information

Product Features

- Hard wearing product.
- Would work well for heavy traffic areas.
- High compressive strength (3 times high than concrete).
- Excellent chemical resistance.
- Applied up to a 30mm wet film thickness.
- Solvent free epoxy technology.

Product Applications

Ideal for coating concrete floors, problematic cementitious surfaces in industrial warehouses and manufacturing, offices and laboratories.



Surface Preparation
Mechanical –
Abrasive Blast



Useable Life
25 minutes



Brush or
Roller
Applied
Primer



Trowel or
Squeegee
Applied
Mortar

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.

New Concrete

1. Let new concrete to cure for a minimum of 21 days (20°C) and treat to remove any surface laitance.
2. Check the moisture concrete of the concrete prior to coating (8% moisture content or below).
3. Lightly abrasive blast or scarify the concrete surface (take care not to expose the aggregate).

Porous Concrete

1. Check the surface for contaminants (such as; oil or grease).
2. Larger areas of contamination can be cleaned using heat compressed air, for smaller areas can be cleaned using a standard degreaser product.

3. Use a floor grinder or shot blaster to prepare the surface for the product.

Prime all surfaces

1. Ensure all concrete surfaces are primed prior to applying UPS 813 EQS.
2. Apply UPS 909 PP Porous Primer a low viscosity epoxy primer to the repair surface using a brush or roller.
3. Apply UPS 909 PP at a wet film thickness of 150 microns.
4. Leave to cure for a minimum of 3 hours at 20°C (68°F).

Mixing

Prior to mixing please ensure the following:

1. The base component is at a temperature between 15-25°C (60-77°F°).
2. The ambient & surface temperature is above 10°C (50°F°).
3. The ambient & surface temperatures are not less than 3°C (37.4°F) above the dew point.

Then proceed with mixing the product:

UPS 813 EQS consist of several components:

1 x Base Resin, 1 x Activator Resin, Natural or Grey coloured aggregate.

1. Transfer the contents of the Activator unit into the Base container.
2. Mix the components well until a uniform material free of any streaks is achieved (pay close attention to the bottom and sides of container).
3. Pour the mixed into the large 20ltr container provided.
4. Pour half the blended aggregate into the container and use an electric paddle to mix.
5. After 2 minutes mix in the remaining aggregate until streak through.

Please Note – In colder climates or when the product is being applied to concrete surfaces lower than 12°C (50°F), add 75% of the aggregate and check the consistency of the mix. Colder temperatures will thicken then resin and therefore less aggregate is required to create a trowel applied product. Just add part of the remaining 25% of aggregate to create the correct level of consistency.

Application

Primer

Brush or Roller applications -

1. Use a brush or roller to apply the mixed primer to the repair surface.
2. Once the surface has been coated with primer leave to cure for at least 3 hours at 20°C (68°F).

Repair Mortar

Trowel or Squeegee applications -

1. Empty the contents of the mixed product to the primed repair surface.
2. Spread material with trowel and smooth off.
3. Once area has been filled with material, wash off trowel with clean water and skim surface of the repair.

Technical Data & Performance

Coverage Rates

10KG Unit (4.3 LTR / 1.15 US Gallon) of fully mixed material will give the following coverage rates -

0.86m ² at 5mm	9.25ft ² at 0.20"
0.43m ² at 10mm	4.6ft ² at 0.4"
0.215m ² at 20mm	2.3ft ² at 0.75"

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45KG Unit (18 LTR / 4.75 US Gallon) of fully mixed material will give the following coverage rates -

3.6m ² at 5mm	38.75ft ² at 0.19"
1.8m ² at 10mm	19.3ft ² at 0.27"
0.9m ² at 20mm	9.68ft ² at 0.27"

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

Drying & Cure Times

At 20°C (68°F) allow the applied materials to harden for the times shown below before subjecting them to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures.

Useable 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

Appearance

Activator Material Colour	Straw Liquid
Base Material Colour	Clear Liquid
Aggregate Colour	Natural/Grey Powder
Mixed Material Colour	Grey Paste

Available Colours

Grey I Natural

Over Coating Times

Minimum	The applied material can be over coated as soon as it is touch dry (approx. 6 hrs.)
Maximum	The over coating time should not exceed 24 hours

Where the maximum over coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

Mixing Ratio

Component	Base	Activator
By Weight	9	1

Density

Mixed	2.5
Activator	1.00
Aggregate	2.7
Base	1.12

Solids Content

100%

Slump Resistance

Nil at 20mm

Useable Life

10°C (50°F)	50 Minutes
20°C (68°F)	25 minutes
30°C (86°F)	12 minutes
40°C (104°F)	6 minutes

Pack Sizes

10KG (4.3LTR / 1.15 US Gallon)
45KG (18LTR / 4.75 US Gallon)

Shelf Life

5 years if unopened and store in normal dry conditions (15-30°C / 60-86°F)

Mechanical Properties

Direct Pull off Adhesion ASTM D4060	35kg/cm ² (500 psi)
Compressive Strength ASTM D695	Concrete failure 880kg/cm ² (12,500 psi)
Flexural Strength ASTM D790	490kg/cm ² (7,000 psi)
Impact Resistance Tested to ASTM D256	1.8 joules
Shrinkage Tested to ASTM C246	Nil
Abrasion Resistance Taber CS17 Wheels / 1KG Load	145mg loss / 1000 cycles 0.53xcc loss / 1000 cycles

Chemical Resistance

The product demonstrates resistance to a wide variety of inorganic acids, alkalis, salts and organic media.

Chemical	Concentration	Temperature
Sulphuric Acid	20%	40°C (104°F)
Sodium Hydroxide	50%	40°C (104°F)
Hydrochloric Acid	10%	40°C (104°F)
Phosphoric Acid	30%	40°C (104°F)
Diesel	-	30°C (86°F)
De-ionized Water	-	20°C (68°F)
Crude Oil	-	40°C (104°F)
Brine	-	40°C (104°F)

Global Availability

UPS 813 EQS Epoxy Quartz Screed is available from a network of Global Distributors for prompt delivery. For further details and the location of your local distributor, please contact Unique Polymer Systems on:

+44(0) 1531 636300 | sales@uniquepolymersystems.com

Technical Service

Complete technical assistance is available. Please contact Unique Polymer Systems with your requirements:

+44(0) 1531 636300 | sales@uniquepolymersystems.com

The products that we supply are for professional use only, it is your responsibility to read the technical data sheets before you place an order and prior to application of the product.

Quality: All Unique Polymer Systems Products are supplied under the scopes of the company's fully documented quality system.

Warranty: Unique Polymer Systems warrants that the performance of the product supplied will confirm to the typical descriptions quoted within this Technical Data Sheet provided the material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

Health & Safety: Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read the fully detailed Material 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 the products suitability for use. Unique Polymer Systems accepts no liability arising out of the use of this information or the product described herein.



**USED ALL OVER
THE WORLD**