



# TECHNICAL DATA SHEET

## UPS 803 GT Epoxy Concrete Repair

### Three Component Solvent Free Epoxy Mortar

**UPS 803 GT** is a high performance mortar designed for use as a heavy duty repair system for concrete and mineral surfaces.

**UPS 803 GT** is based on a blend of solvent free epoxy resins and polyamino amine adducts reinforced with a special blend of silica quartz minerals and inorganic fillers which have been specially selected to provide optimum application and performance properties together with a high level of adhesion, abrasion, impact and chemical resistance.

**UPS 803 GT** is a unique repair system, easy to apply by trowel or float with no shrinkage or volume change during cure and is ideal for the repair of damaged concrete, sills, lintels, steps, ramps, walkways and loading bays.

**Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.**

#### SURFACE PREPARATION

Surfaces to be repaired with **UPS 803 GT** must be clean, dry and free from contamination.

Old concrete surfaces must be thoroughly cleaned with a detergent solution and then washed with clean water and allowed to dry.

New concrete surfaces will generally have laitance on the surface and this must be removed by mechanical means.

All existing coatings must be removed from the surface before any repair is carried out. Failure to do this will mean the **UPS 803 GT** bond is only as good as the existing coating.

Thorough cleaning and roughening of any surface to which **UPS 803 GT** is being applied is absolutely essential for a successful repair.

Abrasion of surfaces will cause dusting and therefore all loose dust should be vacuumed clear before the application commences. excessive thickness of the primer.

#### PRIMING

To obtain maximum penetration and adhesion, the repair area should always be primed with **UPS 803 GT Primer**.

**UPS 4803 GT Primer** consists of a base component and an activator component. The contents of the activator component should be added to the base unit. Mix thoroughly to produce a uniform material. If only small quantities are required then the **UPS 803 GT Primer** can be mixed in the ratio 2 parts base to 1 part activator.

The mixed primer should be applied immediately using a Stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. **UPS 803 GT** will generally apply at coverage rate of 0.37m<sup>2</sup> (4ft<sup>2</sup>) per 100 gms of primer.

**UPS 803 GT** must be used as a tack coat and should not be allowed to dry - any areas of primer which have been allowed to dry should be reprimed for optimum results.

#### MIXING

**UPS 474** is a three component material comprising a base component, activator component and aggregate.

The aggregate component should be removed from the plastic container. The base and activator components should be emptied into this container and mixed thoroughly to produce a uniform material.

The **UPS 803 GT** aggregate should immediately be added to the base and activator mix until the desired consistency is achieved. For bonding and grouting applications approximately two thirds of the aggregate should be added.

For resurfacing and general repairs, all the aggregate should be added. The complete material should be mixed thoroughly for 2-3 minutes to produce a uniform material. Prolonged hand mixing or mixing by mechanical mixer will produce a wetter mix.

If only small quantities are required the **UPS 803 GT** base and activator can be mixed in the ratio of 2 parts base to 1 part activator, with the appropriate quantity of aggregate.

The mixed material should be used within 70 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

#### APPLICATION

The mixed **UPS 803 GT** should be applied to the primed area by float or trowel. The material should be spread firmly and evenly onto the surface and then smoothed over with a steel trowel or float.

On horizontal surfaces **UPS 803 GT** can be applied to virtually any thickness. A thickness of 6 mm (0.25 inches) is recommended.

On vertical surfaces, the maximum thickness which can be achieved without sagging is 12.5 mm (0.5 inches). An application thickness of 6 mm (0.25 inches) is recommended.

When applied at 6 mm (0.25 inches) **UPS 803 GT** will provide a coverage rate of 0.37 m<sup>2</sup> (4 ft<sup>2</sup>) per 5 kg unit. **UPS 803 GT** cannot be readily applied to overhead surfaces without the use of shuttering. Where applications to overhead surfaces are being considered, customers should consult the **UPS Technical Service Department**.

**NOTE:** The minimum temperature of application is 5°C (50°F). On certain repairs there may be adjacent areas where **UPS 803 GT** is not required to bond. By applying **UPS Release Agent** to these surfaces, before the **UPS 803 GT** is applied, then after curing, a simple release can be achieved.

All equipment must be cleaned IMMEDIATELY after use with **UPS Universal Cleaner**.

**Volume Capacity**

450 cc (29 cu ins) per kilo.

Detailed working recommendations are available from the Technical Centre on request.

**PHYSICAL CONSTANTS**

**Mixing Ratio** Mix as supplied.

**Appearance**  
 Primer Base Clear Pale Straw Liquid  
 Primer Clear Amber Liquid  
 Activator  
 Base Clear Pale Straw Liquid  
 Activator Clear Amber Liquid  
 Aggregate Coloured Granular Powder

**Drying & Cure**

<b>times at 20°C (68°F)</b>	<b>UPS 474 Primer</b>	
	Usable Life	30 minutes
	Maximum Overcoating	3 1/2 hours
	<b>UPS 474</b>	
	Usable Life	70 minutes
	Foot Traffic	8 hours
	Full Hardness	24 hours
	Maximum Overcoating	24 hours
	Full Cure	7 days

**Volume Solids** 100%

**V.O.C.** Nil

**Shelf Life** Use within 5 years of manufacture. Store in original containers at temperatures between 5°C and 32°C

**PHYSICAL PROPERTIES**

<b>Abrasion Resistance</b>	145 mgm weight loss per 1000 cycles - 1 kg load - CS17 Wheel
ASTM D4060	
<b>Impact Resistance</b>	1.8 Joules (16 in lbs)
ASTM D256	
<b>Direct Pull Adhesion</b>	35 kg/cm <sup>2</sup> (500 psi) - concrete (Concrete Failure)
ASTM D4541	
<b>Compressive Strength</b>	880 kg/cm <sup>2</sup> (12500 psi)
ASTM D695	
<b>Flexural Strength</b>	490 kg/cm <sup>2</sup> (7000 psi)
ASTM D790	
<b>Shrinkage</b>	Nil
ASTM C246	

**HEALTH AND SAFETY**

As long as normal good practice is observed **UPS 803 GT** can be safely used.

Protective gloves should be worn.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

**PACKAGING**

Supplied in 5 kg and 15 kg packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



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