



# EPOXYBINDER R603

## High Strength Epoxy Repairing Binder

高強度環氧樹脂修補漿

### 1.0 Description

EpoxyBinder R603 is two components non-solvent based, high strength epoxy resin; it offers matt finish with minimal odour for application on surface substrate of concrete, wood, render, screed, metal and steel etc. It is based on a combination of epoxy resin and aggregates to form a high strength epoxy repairing mortar. EpoxyBond R603 is thiooxotropix natual which is suitable for both horizontal and vertical sureface application.

### 2.0 Technical Data

Material	Part A	Resin : Epoxy resin
	Part B	Hardener : Polyamine resin
Volume Solid		> 95%
Specific Gravity	Part A:	1.3
	Part B:	0.98 – 1.02
Curing time	Pot Life:	15-40mins
	Initial Set:	2 hrs
	Foot Traffic:	24 hrs
	Public Traffic:	72 hrs
Compressive Strength (7 <sup>th</sup> day)		85N/mm <sup>2</sup>
Flexural Strength (7 <sup>th</sup> day)		16N/mm <sup>2</sup>
Tensile Strength (7 <sup>th</sup> day)		20N/mm <sup>2</sup>
Bonding Strength		3 – 43 N/mm <sup>2</sup> (For cement screeding /concrete)
		10 – 15 N/mm <sup>2</sup> (For Steel)
Minimum Thickness		3mm
Standard Thickness		3 - 10 mm
Maximum Thickness for each layer of application		50 mm
Interval time for each layer of application		8 hrs

### 3. Advantages

- Good Hardwearing and durability
- Easy to mix and apply
- Hygienic and easy to clean
- No shrinkage
- Solvent free – low odour formulation
- Excellent chemical resistant
- Abrasion and impact resistant

### 4.0 Application

#### 4.1 Substrate Condition

Substrate should be structurally sound, dry and not suffer from rising damp.

Suitable damp-proof membrane should be installed to prevent this.

Substrate should have a relative humidity of not more than 75% at the time of installation and a moisture content of not more than 7% when measured on the Protimeter.

## **4.2 Surface Preparation**

### **Concrete Surface**

New concrete surfaces must be cured for at least 21 days. Old concrete surfaces must be checked for stains, oil contaminants.

#### **Metal Surface**

The surface must be thoroughly degreased and cleaned of stains, oil, grease, paint, etc. It should be grit-blasted to SA2 1/2 (BS 4232 second quality) immediately prior to application.

In cases where grit-blasting are not possible (usually in small difficult areas) power brushing and grinding techniques

#### **Steel Surface**

Prepare surfaces by removing old coatings, rust products, grease, oil etc. by suitable mechanical equipment to a bright metal finish. Apply suitable anti-rusting primer on steel surface.

## **5.0 Typical Application**

Pre-stir the component A and B. The whole of component A (Resin) should be mixed with the whole of component B (Hardener) by a slow speed electric stirrer (300-600rpm). Pour the entire contents of the hardener and base component into a mixing container and mix thoroughly till it becomes homogeneous.

While continuing mixing, add the \*filler gradually until they are completely coated with epoxy liquid.

Pour the mixed material onto the primed surface and spread with a steel trowel to achieve a minimum thickness. The quantity of material should be pre-calculated to ensure that the required thickness is achieved.

\* Filler means quartz sand, Aluminum Oxide or Silicone Cartridge grit, ratio (by Volume/Weight) of Filler to R603 is generally 1 (Epoxy) : 1.5 (Filler).

## **6.0 Packaging**

EpoxyBinder R603 is available in 20kg/set (A: 5kg + B: 1kg + Quartz Sand: 14kg)

## **7.0 Coverage:**

1.3M<sup>2</sup> per set including filler (10mm thickness)

## **8.0 Shelf Life:**

Up to 12 months in unopened containers stored in a cool dry elevated place.

## **9.0 Health and Safety**

In case of eye splashes or excessive skin contact, thoroughly flush with water. If any ill effects should occur seek medical attention promptly.