

Grano-Tech

Three Component Solvent Free Epoxy Mortar



DESCRIPTION

Speccoats Grano-Tech is a high performance mortar designed for use as a heavy duty repair system for concrete and mineral surfaces

Speccoats Grano-Tech 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.

Speccoats Grano-Tech 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 **Speccoats Grano-Tech** 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 coating must be removed from the surface before any repair is carried out. Failure to do this will mean the **Speccoats Grano-Tech** bond is only as good as its existing coating.
- Thorough cleaning and roughening of any surface to which **Speccoats Grano-Tech** 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 areas should always be primed with **Speccoats Grano-Tech primer**. **Speccoats Grano-Tech 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. Of only small quantities are required then the **Speccoats Grano-Tech Primer** can be mixed in the ratio 2 parts base to 1 part activator.

PRIMING

The mixed primer should be applied immediately using a stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. **Speccoats Grano-Tech Primer** will generally apply at coverage rate of 0.37m² per 100gms of primer

Speccoats Grano-Tech Primer 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 re-primed for optimum results

MIXING

Speccoats Grano-Tech 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 & activator components should be emptied into this container and mixed thoroughly to produce a uniform material.

The **Speccoats Grano-Tech** aggregate should immediately be added to the base and activator 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 **Speccoats Grano-Tech** 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. this time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

The mixed **Speccoats Grano-Tech** 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 **Speccoats Grano-Tech** can be applied to virtually any thickness. A thickness of 6mm is recommended

On vertical surfaces, the maximum thickness which can be achieved without sagging is 12.5mm. an application thickness of 6mm is recommended



Grano-Tech

Three Component Solvent Free Epoxy Mortar

APPLICATION

When applied at 6mm **Speccoats Grano-Tech** will provide a coverage rate of 0.37m² per 5kg unit. **Speccoats Grano-Tech** cannot be readily applied to overhead surfaces without the use of shuttering. Where applications to overhead surfaces are being considered, customers should consult the Speccoats Technical Service Department

NOTE: the minimum temperature of application is 5°C

On certain repairs there may be adjacent areas where **Speccoats Grano-Tech** is not required to bond. By applying **Speccoats Release Agent** to these surfaces, before the **Speccoats Grano-Tech** is applied, then after curing, a simple release can be achieved

All equipment must be cleaned immediately after use with **Speccoats Universal Cleaner**

PHYSICAL CONSTANTS

Mixing Ratio	Mix as supplied	
Appearance	<i>Primer Base</i>	Clear, pale, straw liquid
	<i>Primer Activator</i>	Clear Amber Liquid
	<i>Base</i>	Clear Pale Straw Liquid
	<i>Activator</i>	Clear Amber Liquid
	<i>Aggregate</i>	Coloured Granular Powder
Drying & Cure times @ 20°C	<i>Grano Tech Primer</i>	
	<i>Usable Life</i>	30 minutes
	<i>Maximum Overcoating</i>	3 ½ hours
	<i>Grano-Tech</i>	
	<i>Usable Life</i>	70 minutes
	<i>Foot Traffic</i>	8 Hours
	<i>Full Hardness</i>	24 Hours
	<i>Maximum Overcoating</i>	24 Hours
	<i>Full Cure</i>	7 Days
Volume Solids	100%	
V.O.C.	Nil	
Shelf Life	Indefinite in original seal containers when stored between 5°C & 40°C	
Food Contact	Meets USDA requirements for incidental food contact. Meets FDA Requirements CFR 21.175.300 for food contact	

PHYSICAL PROPERTIES

Abrasion Resistance	<i>145 mgm weight loss per 100 cycles – 1kg load – CS17 Wheel</i>
ASTM D4060	
Impact Resistance	<i>1.8 joules (16 in lbs.)</i>
ASTM D256	
Direct Pull Adhesion	<i>35kg/cm² (500 psi) – concrete (Concrete Failure)</i>
ASTM D4541	
Flexural Strength	<i>880 kg/cm² (12500 psi)</i>
ASTM D695	
Shrinkage	<i>Nil</i>
ASTM C246	

HEALTH AND SAFETY

As long as normal good practice is observed, **Speccoats Grano-Tech** can be safely used

Protective gloves should be worn

Refer to Material Safety Data Sheet (MSDS)

HEALTH AND SAFETY

Supplied in 5kg and 15kg packs

DISCLAIMER

Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product. **ISSUE DATE 31/01/2011**