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# TECHNICAL DATA SHEET

## Hycote 670GT

**ThistleBond 'Hycote 670GT'** is a high performance mortar designed for use as a heavy duty repair system for concrete and mineral surfaces.

**ThistleBond 'Hycote 670GT'** 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.

**ThistleBond 'Hycote 670GT'** 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 **Thortex 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 laitence 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 **ThistleBond 'Hycote 670GT'** bond is only as good as the existing coating.

Thorough cleaning and roughening of any surface to which **ThistleBond 'Hycote 670GT'** 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 **ThistleBond 'Hycote 670GT' Primer**. **ThistleBond 'Hycote 670GT' Primer** consists of a resin component and a hardner component. The contents of the hardner component should be added to the resin unit. Mix thoroughly to produce a uniform material. If only small quantities are required then the **ThistleBond 'Hycote 670GT' Primer** can be mixed in the ratio 2 parts resin to 1 part hardener.

The mixed primer should be applied immediately using a stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. **ThistleBond 'Hycote 670GT' Primer** will generally apply at coverage rate of 0.37m<sup>2</sup> (4ft<sup>2</sup>) per 100 gms of primer.

**ThistleBond 'Hycote 670GT' 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 reprimed for optimum results.

### MIXING

**ThistleBond 'Hycote 670GT'** is a three component material comprising a resin component, hardener component and aggregate.

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

The **Thortex Grano-Tech** aggregate should immediately be added to the resin and hardener 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 **ThistleBond 'Hycote 670GT'** 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 **ThistleBond 'Hycote 670GT'** 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 **ThistleBond 'Hycote 670GT'** 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) **ThistleBond 'Hycote 670GT'** will provide a coverage rate of 0.37 m<sup>2</sup> (4 ft<sup>2</sup>) per 5 kg unit. **ThistleBond 'Hycote 670GT'** cannot be readily applied to overhead surfaces without the use of shuttering. Where applications to overhead surfaces are being considered, customers should consult the **Technical Service Department**.

**NOTE:** The minimum temperature of application is 5°C (50°F).

On certain repairs there may be adjacent areas where **ThistleBond 'Hycote 670GT'** is not required to bond. By applying **ThistleBond 'Release Agent'** to these surfaces, before the **ThistleBond 'Hycote 670GT'** is applied, then after curing, a simple release can be achieved.

All equipment must be cleaned IMMEDIATELY after use with **ThistleBond 'Cleaner'**.

**Volume Capacity**

450 cc (29 cu ins) per kilo.

**PHYSICAL CONSTANTS**

**Mixing Ratio** Mix as supplied.

**Appearance**

Primer Resin	Clear Pale Straw Liquid
Primer	Clear Amber Liquid
Hardener	
Resin	Clear Pale Straw Liquid
Hardener	Clear Amber Liquid
Aggregate	Coloured Granular Powder

**Drying & Cure times at 20°C (68°F)**

**ThistleBond 'Hycote 670GT' Primer**

Usable Life	30 minutes
Maximum Overcoating	3 1/2 hours

**ThistleBond 'Hycote 670GT'**

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 purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

FOR FURTHER INFORMATION PLEASE CONTACT



**Food Contact** Meets USDA requirements for incidental food contact.  
Meets FDA Requirements CFR 21.175.300 for food contact.

**PHYSICAL PROPERTIES**

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

**HEALTH AND SAFETY**

As long as normal good practice is observed **ThistleBond 'Hycote 670GT'** 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 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. Detailed specifications are available on request from the company.



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