

# Thermexx Adhesive Mortar

## Purpose & Areas Of Use:

A modified mortar made out of **Thermexx Adhesive Binder** and **Premix 1** or **Premix 14**. This product is particularly suitable as a thick bed mortar adhesive under paving tiles, where heavy traffic loads are anticipated. It offers both excellent adhesion as well as the ability to adjust falls giving a bed of between 3mm and 11mm depth, without loss of cured properties.

## Product:

A modified acrylic polymer reinforced silica sand cement mortar specifically designed with easy working characteristics. Supplied as a two component **Thermexx Adhesive Binder** liquid and 25kg bags of **Premix 1** or **Premix 14**, for normal patching/screeding applications. Specific grades can be produced for special uses where cement/aggregate ratios and grading may vary from the norm, in terms of adhesion, flexural strength or mortar composition.

## Physical Properties:

### Formulated **Thermexx Adhesive Slurry**

As per ISO 13007 as tested by CSIRO, Australia, Aug. 2002

Tensile Adhesion Strength: 1.89 MPa @ 20 mins open time.  
Water Immersion Test: 1.20 MPa

### Formulated **Thermexx Adhesive Mortar**: (typical)

Tensile Strength:	4.2 MPa	(1.6 MPa)
Compressive Strength:	39 MPa	(16.5 MPa)
Flexural Strength:	11.9 MPa	(4.2 MPa)
Shear Bond Adhesion:	>4.4 MPa	(0.3 MPa)
Impact Strength:	1.8 Kg-m	(0.7 Kgm)

**Note:** Figures in brackets relate to a typical unmodified cement mortar.

## Surface Preparation:

### Old Concrete/Plaster:

Patching - Hack back to sound concrete/plaster ensuring that a straight or undercut edge at least 8mm deep is achieved. Remove any contaminated concrete or plaster which may inhibit adhesion.

Screeding - Caustic wash floor surfaces to remove all contamination and expose sound clean concrete. If necessary, scabble or flame clean surface.

### New Cement Surfaces:

Patching - Ensure all unsound material is hacked free.  
Screeding - Broom grade concrete is recommended or shot blast treatment will be required.

**Note:** surfaces should be clean and water-free before mortar/plaster application. Dampness can be tolerated without ill effect.

## Application Method:

As an adhesive mortar under pavers:

**Slurry coat:** Normally a slurry-bonding technique is employed, with the slurry mixed as:

**Thermexx Binder** 1 Volume

**Premix 3** 1 Volume

Water as needed to give a brushing slurry

The slurry should be well brushed into the surface with a stiff brush and allowed to "set-up" (4 hours+) before the mortar or screed is applied.

### Mortar/Plaster:

Mix ratios will vary depending on end-use

**Thermexx Binder** 5 litres

**Premix 14** 25kg

Water Add as necessary and beat up.

A "wet" mix is to be avoided. The mixing ratio given will provide a dry mix which will screed and "pack" well. Levelling should be carried out with as little working of the surface as possible.

Generally, areas to be tiled are set out in grid patterns and the mortar is poured on to form a bed of about 4mm to 11mm depth (say 7mm average).

There is also the option of **Equus Thermexx Mesh** reinforcement to the **Thermexx Mortar**. This will reduce potential craze cracking through the **Thermexx Mortar**.

Expansion joints are set up to reflect through the topping slab, **Thermexx Mortar** and the paver set out. All joints can be filled with Tremco THC 901 colour coordinated sealant.

Where grout lines are to be expressed, those can be filled with **Equus Pourable Grout**. Which can be colour coordinated to suit the paver/tiles.

### Butter to back of Paving Tiles:

Mix as per the slurry coat to concrete

1 Volume **Thermexx Binder**

1 Volume **Premix 3**

Add water to form a nice butter.

Trowel liberally to back of the paving tile and edges and place evenly in the wet **Thermexx Mortar**.

## Application Properties:

Dry time: The mortar will through-harden a little more slowly than a conventional mortar during the first few hours after laying. Within 6 hours of application, dry and cure times become similar, but strength gain is greater in all areas with the **Thermexx Mortar**.

Clean Up: All equipment should be cleaned down in fresh water immediately after use. Dry **Thermexx** mortars and slurries adhere tenaciously.

## Health and Safety:

**Thermexx Mortar** is a non-flammable emulsion and is non-toxic, and safe to handle. The normal precautions for sink care taken when handling cement-base materials should be observed.