

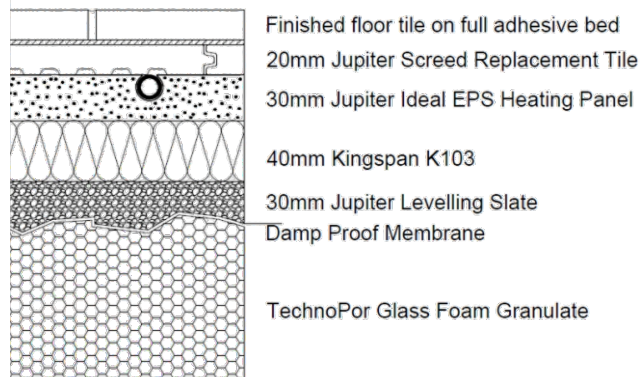
Jupiter's proposed sections

16<sup>th</sup> Century Farmhouse, 2016  
Thatched Grade 2 Listed Farmhouse

Architect: Woodford Architecture  
www.woodfordarchitecture.com



We were initially contacted by the architect to provide an efficient underfloor heating system that would not introduce moisture to the 16<sup>th</sup> century farmhouse.



The above floor detail shows the completely dry-installed floor construction. Jupiter levelling slate was laid over a DPM to form the flat and level surface onto which the primary insulation was laid before our unique heating system.



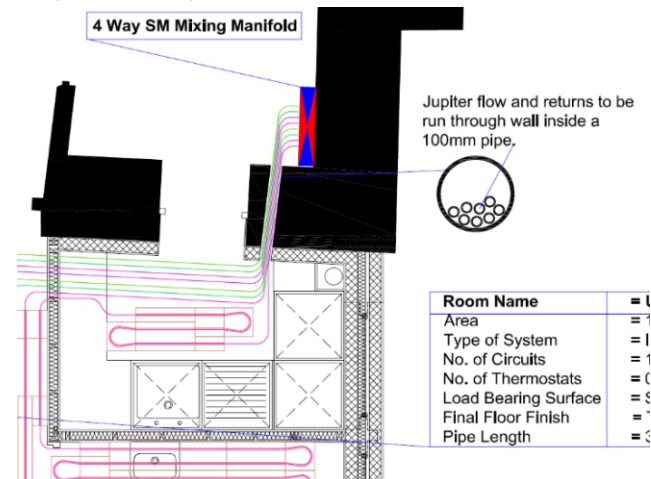
The Jupiter Screed Replacement Tile was used to provide the ideal substrate for the large-format finished floor tiles. The SRT system decouples the finished floor and allows Jupiter to guarantee finished floor tiles against failure for five years.



As an alternative to a conventional slab TechnoPor Glass Foam was used. Adopting this method of construction forms a strong and insulated base without the drying out time of a concrete slab.



The Jupiter Ideal EPS heating panel was selected for its ability to deliver superb heat output rapidly and, equally importantly, evenly to prevent cold spots on the floor.



Due to limited space in the utility room the manifold was located outside the heated area. The flow and return pipework was brought neatly through the thick wall in a pipe conduit at floor level.

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www.jupiterunderfloorheating.com



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In stark contrast to the first picture taken just five months before. The finished result: 'a considered response to the original buildings and their rural setting with a sensitive remodelling and refurbishment of this historically important property'.



Due to the limited thermal mass of the Screed Replacement Tile it is able to swiftly respond to changing room temperatures. This is particularly important in rooms with large solar gain due to the windows where an excess of heat would be undesirable.



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Jupiter's - chicken wire insulation carrying system

# ADHERE Cal

NATURAL HYDRAULIC LIME ADHESION MORTAR

TC.E.1150.1 ENO

## 1. DESCRIPTION

*ADHERE Cal* is a premixed mortar for laying tile, formulated exclusively from Natural Hydraulic Lime (NHL), siliceous aggregates and additives.

*ADHERE Cal* adhesion mortar is available in beige.

## 2. AREA OF USE

*ADHERE Cal* is especially designed for laying and grouting tiles or tile work with high absorption (> 10%, type AIII and BIII according to standard EN 14411) in preservation, renovation and restoration of old building jobs, as well as contemporary buildings, if applicable. Suitable for laying small pieces with high absorption (maximum recommended format 400 cm<sup>2</sup> [20 cm x 20 cm]), on interior and exterior walls.

*ADHERE Cal* is applied preferably over lime-based mortars, for example substrates treated with *REABILITA Cal Reboco*, *REABILITA RA 01* and *Secil ecoCORK lime*, in masonry substrates in stone, adobe and partition.

*ADHERE Cal* is suitable for total repairs of tile coating or for small repairs of areas using existing pieces.

For non-current uses or particular substrates, we advise contacting our Technical Service.

## 3. PRODUCT CHARACTERISTICS

POWDERED PRODUCT	VALUE	STANDARD
Colour	Beige	-
Granulometry	< 1.0 mm	-

PASTE PRODUCT	VALUE	STANDARD
Mixing water	28.0 ± 1.0%	-
Density	1400 ± 100 kg/m <sup>3</sup>	EN 10152
Theoretical consumption	5.0 to 6.0 kg/m <sup>2</sup>	-

HARDENED PRODUCT	VALUE	STANDARD
Initial adhesion	≥ 0.2 N/mm <sup>2</sup>	EN 12004
Adhesion after open time (20 min.)	≥ 0.1 N/mm <sup>2</sup>	EN 1346
Adhesion after immersion in water	≥ 0.2 N/mm <sup>2</sup>	EN 1348
Adhesion after heat	≥ 0.1 N/mm <sup>2</sup>	EN 1348
Capillarity coefficient (class)	W1	EN 101518
Compressive strength (7 days) (28 days)	0.7 MPa 6.8 MPa	EN 101511
Flexural Strength (7 days) (28 days)	0.3 MPa 3.3 MPa	EN 101511
Density	1400 ± 100 kg/m <sup>3</sup>	EN 101510
Modulus of elasticity	4650 MPa	BS 18845
Reaction to fire	A1	EN 998:1

## 4. APPLICATION

### Preparation of substrates

Substrates must be cohesive, adhesive and free of dust, gypsum, paints, disintegrated or unstable particles, efflorescence, as well as any other material that affects the normal adhesion conditions.

## Secil Argamassas

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The substrates should appear regular and levelled, with all cavities and open areas filled and achieve an uniform level.

After cleaning, the substrate should be dampened with clean water on the day prior to application.

Ensure the execution of expansion joints on the perimeter of the area to be bonded, as well as the connection with the vertical elements or other fixed devices. Remove all metal elements in the substrate.

Proceed with joint marking. This is especially important when the original tiles show dimensional variations.

## Preparation of mixture

**ADHERE Cal** should be mixed with 6.5 to 7 litres of clean water (preferable potable) for each 25kg bag, with a low speed electrical mixer, until a soft past free of lumps is obtained.

Let the mixture rest for 2 minutes and mix again without adding water nor more product.

## Application – Bonding

Tiles should be previously dampened in water, to avoid quick drying of the mortar.

Apply the mortar on the substrate with a stainless steel notched trowel and on the back of the tile to ensure that the surface is filled (no empty spaces). The tile should be placed in position with a rubber hammer.

Do the work in small areas, suitable to conditions of temperature and atmospheric humidity. Control the adhesion by periodically removing a piece that is already bonded, to see whether the back of the piece and the substrate are correctly filled with mortar.

Do not proceed with the work when you observe that the open time has expired, which is confirmed by the appearance of a film of a different shade on the surface of the mortar.

## Application – Grouting

**ADHERE Cal** mortar is applied with a rubber trowel, spreading the mortar in a direction diagonal to the pieces.

Press the trowel to totally fill the joint and remove excess. Excess mortar should be cleaned with a cleaning trowel or a slightly damp sponge, always using clean water.

As soon as the product is completely dry, do a general cleaning with a damp sponge and then eliminate the excess dust with a dry cloth.

## Restrictions

**ADHERE Cal** should never be applied on isolated portions, but should cover all of the substrate and the back of the ceramic to be bonded.

Do not apply **ADHERE Cal** over paint or varnishes.

**ADHERE Cal** should not be applied in room and substrate temperature below 5°C and above 30°C.

## Additional advice

The mixing water should be free of any impurities (clay, organic matter), and preferably potable;

Do not apply any mortar that expired its open time. Do not weaken the mortars by adding water, after preparation;

Do not add any other products to the mortar. **ADHERE Cal** should be applied as it is presented in its original packaging.

## 5. PACKAGING AND VALIDITY

### Packaging

25kg paper bags in 60 bag plasticized pallets.

### Validity

12 months if packaging remains unopened and stored away from extreme temperatures and humidity.

## 6. ASSOCIATED PRODUCTS

### Range of products REABILITA

(Products for restoration/renovation)

### Secil ecoCORK Lime

(Natural hydraulic lime and cork thermal render)

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# ADHERE Cal

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TC.E.1150.1 EN0

## 7. HEALTH AND SAFETY

(DOES NOT SUBSTITUTE PRODUCT SAFETY DATA SHEET)

Causes skin irritation;

Causes serious eye injuries;

May cause irritation of the respiratory tract

If you need to see a doctor, show him the packaging or label.

Keep out of reach of children;

Wash carefully after handling;

Use protective gloves, clothing, eye protection, face protection;

Eliminate the contents and/or the receptacle through a system of selective collection in use in your municipality.

*As the application of our products is beyond our control, we are not responsible for their misuse. It is the customer's duty to check the suitability of the product for its intended purpose. In any event, our responsibility is limited to the value of the goods supplied by us. The information on this sheet may change without notice. If you have any queries and require further clarification, please contact our technical services.*

Revised November 2015  
TC.E.1150.1 EN



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**Adhere Cal**

EN 9981:2010

General purpose plaster mortar (GP) for coatings

Declaration of performance TC.E.0828

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