

# Wall-Reform Thermal Render

Part of the Alliance Remedial  
Damp-Proofing Range of Products

## The Problem

WallReform Thermal Render was developed to provide an economical method of wall insulation, while dealing with salt affected plaster. The render decreases the U-value of the wall, reducing the amount of heat loss through external walls, meaning a reduction in heating bills. Although it can be used to replace old or damaged plaster, it is especially useful after the insertion of a remedial damp proof course, as it prevents salts in the wall migrating to the surface.

## What are hygroscopic salts?


Hygroscopic salts occur naturally in the ground - typically chlorides and nitrates - and are brought up from the ground by rising damp, and then can be deposited in the wall. Rising damp moisture will evaporate from the surface of the wall through the plaster, salts are unable to escape, so they build up in high concentrations in the wall and plaster. Salts will absorb moisture from the atmosphere (*when humid conditions exist*) and make the wall appear wet.

## Prevents salt migration

Following the installation of a remedial damp proof course, it is vital that a special salt retardant plaster is used to create a barrier to hold the salts in the wall. This will stop the top surface of plaster from becoming contaminated by hygroscopic salts. Traditional lightweight plasters are not able to prevent salts migrating to the surface, which means the wall will appear wet again. Thermal Render is ideal as it prevents the migration of salt.

## An effective solution –Thermal Render

Once the old plaster is removed and the surface is washed down to remove dust, a primer coat of EVA (*ethylene vinyl acetate*) is applied to the wall. Immediately and while the wall is still wet, Thermal Render is applied to the required thickness. Once this has set the job is completed with a standard skim coat of plaster.



Because this product helps reduce Carbon Emissions (CO<sub>2</sub>) it can be charged, along with ALL ASSOCIATED works, at **5% VAT**, including removing and refitting skirting boards, radiators etc.



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## Thermally Efficient

Thermal Render is more thermally efficient than traditional sand and cement renders, reducing heating bills. The product reduces condensation and mould growth as the thermal render raises the surface temperature of the wall. Thermal Render is also comparable with traditional lime based mortars in terms of shrinkage and breathability.

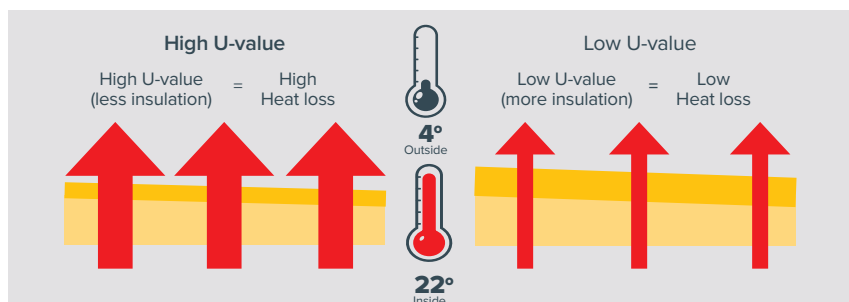
## Thermal Render U-value Calculation

The term U-value is a measurement of how effectively a structure retains heat. U-values are obtained by calculating the resistances of all the elements involved.

The lower the U-value the better the material is as a heat insulator, so less heat is lost. An uninsulated, solid wall (229mm thickness) would have a U-value of 2.1 W/m<sup>2</sup>K. This takes into account all materials including bricks, basecoat plaster, and finish coat plaster.

*This table below shows the Thermal Render U-values for various types of wall.*

U-values at Various Thicknesses						
Thermal Render	Uninsulated	10mm	20mm	30mm	40mm	50mm
Brick	2.1	1.46	1.15	0.95	0.81	0.70
Stone Wall	2.62	1.7	1.3	1.0	0.9	0.77
Lightweight Concrete Block	0.5	0.46	0.42	0.39	0.36	0.34
Medium Concrete Block	1.54	1.2	0.98	0.83	0.72	0.64
Dense Concrete Block	2.7	1.82	1.36	1.09	0.91	0.78



Thermal Render on a solid brick wall 229mm thick 0.81 W/m<sup>2</sup>K v standard solid brick wall 229mm thick 2.1 W/m<sup>2</sup>K.

## How it's Applied

- 1** Hack off the existing plaster & remove dust from surface
- 2** Apply the EVA Primer to the prepared wall.
- 3** Apply the Thermal Render on top of the EVA Primer while this is still wet, building up to match existing finishing thickness
- 4** Once the Thermal Render is set, apply a skim plaster coat



## Features

- Thermal Render uses EVA (Ethylene Vinyl Acetate) emulsion as a bonding agent
- EVA is microporous allowing the wall to breathe
- Thermal Render is significantly more thermally efficient compared to sand and cement renders
- Thermal Render combined with a DPC provides a guaranteed solution to rising damp, condensation and mould.
- A variety of finishes can be applied as a topcoat
- In areas where old plaster was thick or consisted of multi-coats of render, Thermal Render can be built up in one coat
- BBA Certificated product as a Thermal Render
- BBA Certificated product as a damp proof plaster
- BBA Certificated product as an insulating plaster
- Energy Saving Trust approved

## Our Treatment Service

- A guaranteed solution to prevent salts from migrating to the surface in a wall previously affected by rising damp
- EVA coating allows the wall to breathe so residual moisture can dry off through the plaster finish
- It helps keep valuable heat in your home meaning it can pay for itself over time whilst reducing CO<sub>2</sub> emissions
- A plaster skim finish is applied internally matching existing plaster, meaning no visual differences between the thermal render and standard non-thermal plaster finishes
- Thermal Render is guaranteed, giving you peace of mind



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