

Stops **rain** penetration

Improves **thermal** efficiency

Improves **flood** resistance



STORM DRY
Masonry Protection Cream



www.rtcgroup.co.uk

Stormdry masonry protection cream

When masonry gets wet, it gets cold... and cold walls mean cold buildings as heat escapes much more readily.

Protect your home from penetrating damp and increase the thermal efficiency of masonry with Stormdry.

With its unique colourless cream formula, a simple one-coat application will protect brick, stone and concrete from rain penetration for 20-30 years, whilst allowing the masonry to breathe and retain its original looks and features.

The Problem – Wet Masonry

When walls get wet, their thermal efficiency tumbles and valuable heat escapes. They become less effective at keeping heat in.

The UK government has set a target of an 80% reduction in carbon emissions from buildings by 2050. (Climate Change Act, 2008). Even now, a third of Britain's housing stock has solid wall construction and this is predominantly single skin brick or stone. (English House Condition Survey, 2007).

These walls are difficult to insulate conventionally:

- Cavity wall insulation is not possible
- External insulation can be costly and unattractive
- Internal insulation can be impractical and takes up valuable floor space

So what can be done?



The Solution – Stormdry

Stormdry prevents rain penetration and is scientifically proven to reduce heat loss in single skin masonry construction, with an energy saving of up to 29%*. All in one simple single coat application.

*University of Portsmouth



Protecting against rain penetration

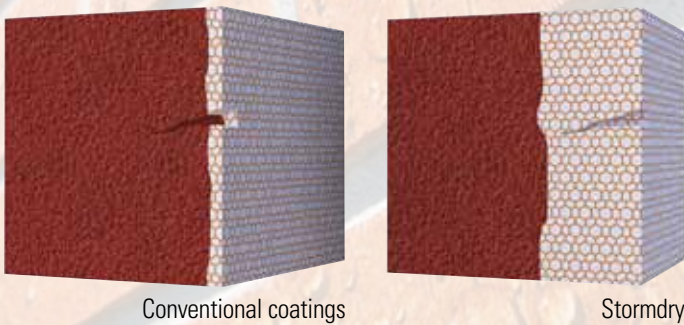
Stormdry will protect against water penetrating through the pores of bricks, mortar and stone. It will provide protection against rain penetrating through cracks in the masonry smaller than 0.3mm. Larger cracks should be filled before application of Stormdry. Mortar in poor condition should be repointed using a suitable sand/lime or sand/cement mortar incorporating Stormdry Repointing Additive.

Penetration depth

Stormdry is able to penetrate more deeply into masonry than traditional liquid-applied masonry water repellents.

The increased penetration depth provides a number of benefits, including:

- Increased life expectancy - unlike thin coatings Stormdry's effectiveness will not be affected by the erosion of the masonry surface over time.
- Improved crack-bridging ability - because Stormdry penetrates deeply into masonry, it will penetrate beyond the depth of small cracks.



Beading and Stormdry gauge

As Stormdry is formulated to penetrate deeply into masonry it can take up to two months after application for a noticeable "beading effect" to appear when rainfall strikes the wall. However Stormdry is resistant to rain within a few hours.

After two or three years the "beading effect" will become less pronounced. However, Stormdry will keep on working for 20-30 years. This can be confirmed by using a Stormdry gauge (pictured).



Prepare masonry

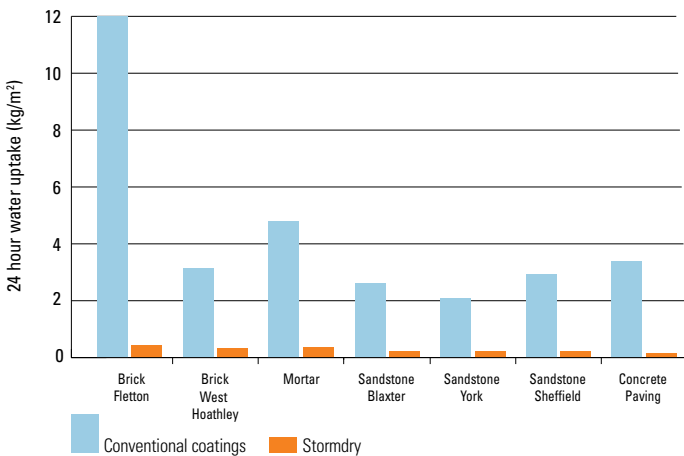


Stormdry is supplied ready for use

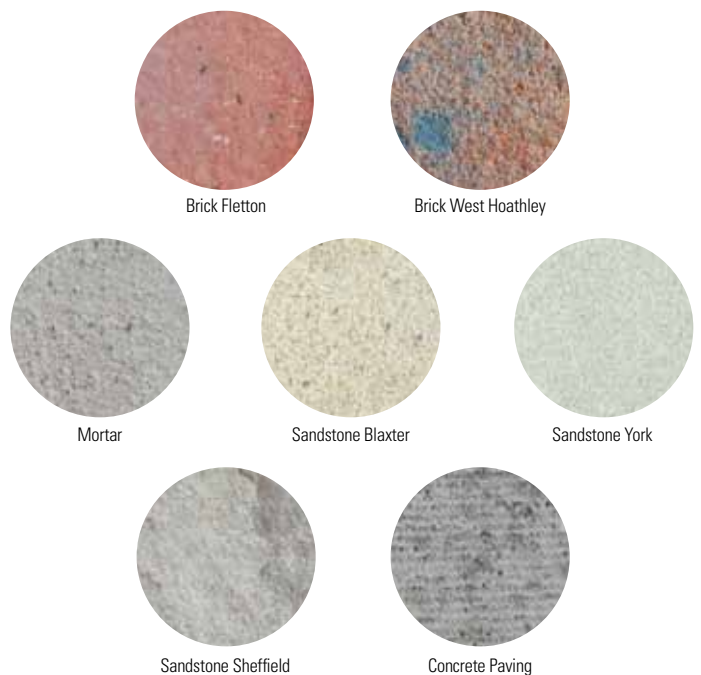
Effectiveness

Stormdry has been tested to EN ISO15148:2002 (E), demonstrating its effectiveness on concrete, mortar, brick, and sandstone.

Masonry Protection on Different Substrates



Stormdry is not suitable for use on limestone, please call our technical department for further advice on treating limestone.





Stormdry test gauge

Improving flood resistance of masonry

Stormdry can be used to increase the flood resistance of masonry as part of a flood resilience system. It will offer a lower level of flood resistance than high-build waterproof coatings and renders, however it has the benefit of allowing the natural appearance of brickwork or stonework to be maintained. When used in conjunction with a cavity drain flood protection system, Stormdry will increase the primary resistance of the masonry - reducing the risk of ingressing flood water overwhelming the pumping system. Call our technical department for details.



Easily applied by brush...



...or by roller



Treated wall immediately after application



Cures to original appearance

Improving the thermal performance of masonry

Permeable construction materials such as brick, stone, concrete, and mortar are worse insulators when they are wet; much in the same way as wet clothes feel cold.

Testwork carried out by the University of Portsmouth has shown that the treatment of brickwork with Stormdry reduces conductive heat loss by a factor of two. Tests on a model house treated with Stormdry show a 29% reduction in heating energy.

This fact has been recognised in a UK Government initiative and Safeguard been awarded a grant to research the impact the technology can make on carbon reduction targets (see <http://www.innovateuk.org>).



Substantial heat loss can occur through single skin walls. *Photo courtesy of iRed Ltd*

STORM DRY
Masonry Protection Cream



Stormdry is a colourless*, breathable, water-repellent treatment for brick, concrete, and stone walls. It is supplied in the form of a deeply penetrating 'cream' that is applied to the wall surface in a single coat using a roller or brush. Once Stormdry has been applied it will permeate deeply into the masonry before curing to form a water-repellent barrier.

Typical applications for Stormdry include:

- Protection against penetrating damp
- Improving thermal efficiency of masonry by keeping it dry (energy saving)
- Maintaining thermal properties of cavity wall insulation
- Improving flood resistance of masonry

Stormdry is based on carefully selected silanes and siloxanes which line the pores of the masonry to form a water-repellent silicone matrix. Because it works by lining the pores rather than blocking them, the masonry is allowed to breathe, and does not suffer from an increased risk of frost damage (spalling). Due to its novel formulation and deep penetration, Stormdry is highly resistant to UV light and other forms of degradation, resulting in a life expectancy of 20-30 years. Stormdry should only be applied to dry, porous surfaces. It should not be applied over sealed or painted surfaces and is intended for above-ground use only.

*Application of Stormdry may cause very slight darkening to some substrates. Although this will usually fade over time, a small, representative and inconspicuous test area should always be treated before full treatment begins.

Benefits of Stormdry

- Easy to apply
- Provides water and rain repellency
- Reduces heat loss
- Single-coat application - saves time
- Easy to estimate quantity of product required - each litre treats 5m²
- Tested to ISO 15148:2002 on a wide range of substrates - including bricks, mortars, concrete, and sandstone
- UV resistant - long life expectancy
- Does not block pores - allows substrate to 'breathe naturally'
- Deeply penetrating - improves the effectiveness of the treatment by bridging small cracks and extends the life of the treatment
- Alkali resistant - can be applied over freshly pointed walls



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