System 800

NEWTON SPECIFICATION SHEET

Improving Thermal Efficiency of External Walls

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How to dramatically improve the thermal efficiency of exterior walls using a combination of unique products from Newton Waterproofing Systems.

OVERVIEW

A damp wall is a cold wall. A cold wall attracts condensation. Condensation attracts mould. Your damp wall and/or cold wall is certainly costing you money, and it could be also costing you your health.

Your wall may be cold for a variety of reasons. Single skin and solid walls are unsuitable for cavity wall insulation and so the exterior wall of the property is significantly cooled by cold outside temperatures. Solid walls are also more susceptible to penetrating dampness from wind-driven rain. A damp wall is much less thermally efficient than dry wall, and even insulated walls will become thermally inefficient if the moisture makes the insulation damp also.

Occurance	Issue	Result
Single skin or solid walls	Transfer of cold temperatures to internal surface	Condensation risk
Wind driven rain	Wet or damp walls or thermally inefficient resulting in cold internal surfaces	Condensation risk
Wind driven rain	Dampening of cavity wall insulation resulting in thermally inefficient insulation	Condensation risk
Cold internal walls due to thermally inefficient walls and /or insulation	Surface condensation is damaging, unsightly and is a contributory factor for the growth of moulds to internal surfaces.	Surface mould

SOLUTION - KEEPING THE WALL DRY

Newton 807 BKK *eco* is a transparent, colourless wall coating that is water siloxane based, ideal to protect porous walls of various substrates from wind driven rain. After treatment, the wall is deeply impervious to water ingress and so better protected against frost damage. The treated wall will continue to dry and vapour drive is not affected due to the coating being highly vapour permeable.

The resultant dry wall is much more thermally efficient and will save on heating bills also. Having a low molecular weight, Newton 807 BKK eco penetrates deeply into the substrate creating an invisible but deep layer of protection that is extremely stable to lime and very permeable to water vapour.

SOLUTION - INCREASING THE SURFACE TEMPERATURE OF INTERNAL WALL SURFACES

Newton 806 CWC is a white thermal coating for cold and poorly insulated surfaces. It contains specific mineral powders which, thanks to their insulating features, warm the surface of the treated wall.

Condensation is formed when warm air, holding water vapour, comes into contact with a cold surface (dew point surface). The air near to the cold surface cools and the cooler air is unable to hold as much water vapour as it was able to when it was warmer. The water vapour that the cooler air is unable to hold is deposited on the adjacent cool surface. The 5°C difference between a surface treated with CWC and one not treated with CWC will, in most cases, take the wall surface temperature to above the dew-point, which means that the formation of condensation and mould is eliminated.

RESULT

Treatment with Newton 806 CWC and Newton 807 BKK *eco* results in exterior walls that are drier and much more thermally efficient. The difference to the internal habitable environment will be very noticeable and the occurrence of surface moulds will be considerably reduced. As well as being more thermally efficient, the exterior walls will be less susceptible to frost damage and the pointing within mortar walls will last longer.

For further information on this Specification Sheet, the products mentioned above or any other of the Systems and Products supplied by Newton Waterproofing Systems, please visit www.newtonwaterproofing.co.uk or call us on +44 (0)1732 360 095..

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