

GA/11/10/06

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HIGHER EFFICIENCY INSULATION THAT HOLDS THE WALLS TOGETHER

For houses with the serious problem of failing wall-ties one useful solution assists in both stabilising and insulating the walls. This is an insulant that bonds the walls together but also has a much higher insulation value than the more commonly used injected cavity wall insulation materials.

Called polyurethane foam it is also pumped into cavity walls, but at lower pressures to prevent stress on the walls. Once set the closed cell foam acts as a strong bonding agent.

Wall tie failure, mainly due to corrosion, is not uncommon: very many UK houses are at risk.

The foam, as well as strengthening walls and adding one of the more efficient forms of insulation, also resists water efficiently, due to its 'closed-cell' composition when set. This maintains the constant efficiency of the insulation, even in geographical areas subject to intense rain penetration and flooding.

The liquid polyurethane foam system is injected by specialist members of the British Urethane Foam Contractors Association, into the cavity formed in a traditional masonry cavity wall, through properly spaced holes in the outer wall. The foam expands within the cavity, setting to adhere to the inner and outer leaves of the wall bonding them together. It is a satisfactory replacement for normal metal wall ties and provides a high degree of insulation. Polyurethane as an insulant is approximately twice as effective as other forms of cavity fill, which sometimes can result in thinner cavities being designed in new constructions, with the attendant advantages of greater floor areas and easier building practices.

Due to the expanding properties of the foam, air leakage, draughts and cold spots are eliminated, providing superior energy-saving insulation that greatly reduces the risk of internal condensation.

There are British Standard Codes of Practice, with some BUFCA members approved by the British Board of Agrément. An insurance-backed guarantee is available. Applying injected polyurethane cavity wall insulation to your home will cost around £2000 in a typical semi, and gives you the benefit of a superior insulant, and one which is robust and resistant to floods. This is especially important to those properties constructed on flood plains or near known flood-risk areas.

The insulant is also commonly used for locking on roof tiles, when roof tile fixings have failed. A thick coating can impart high efficient insulation to the roof, reducing air leakage and draughts. Used also at rafter level a warm roof void can be created, obviating the need for air vents, pipe lagging and tank jackets.

An added bonus - due to the sealing qualities of the foam - is the reduction of airborne sound penetrating the property. Humidity levels and condensation are also better controlled providing better air quality within the home.

Retrofitting of uninsulated or poorly insulated properties provides the biggest contribution to carbon dioxide savings, with an impact both on the local environment and globally. Some 150,000 properties have been treated to polyurethane foam insulation in the UK. The system has British Board of Agrément approval for use in existing and new build applications and can show compliance to Building Regulations.

Members of the British Urethane Foam Contractors Association agree to abide by the Association's Code of Professional Practice. To find a local BUFCA member contact the Association at P O Box 12, Haslemere, Surrey GU27 3AH; on tel: 01428 654011; fax: 01428 651401; e-mail: info@bufca.co.uk; web: www.bufca.co.uk.

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Further information from Alan Onslow on 01428 654011.