



WALLTITE®

The airtight insulation solution

Watford Victorian Terrace

Best Practice Case Study



Advantages at a glance

- Closed cell structure – maximises insulation performance and resistance to moisture
- Seamless application provides airtightness
- Minimal preparation to wall surface – no levelling coat required
- Fast track application to any given thickness
- Very little waste
- No storage on site

 **BASF**

We create chemistry

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Project data

Project: Victorian Terrace, Garston, Watford

Client: Building Research Establishment (BRE), Watford

Scope of Project: Refurbishment of an old stable block

Year Completed: 2010

Products Used: WALLTITE spray foam insulation

Project description

Rethinking Refurbishment is a key initiative for the Watford based BRE with several projects around the country providing vital data for a Code for Sustainable Development. One of these projects, working in partnership with BASF, is the transformation of a disused Victorian stable block into a 21st Century living and exhibition space. The project will demonstrate and analyse how older buildings with solid walls, poor insulation, draughty windows, inadequate heating and in a state of general disrepair can be transformed to provide attractive, flexible and energy efficient accommodation for the future. The completed scheme will incorporate a house and two flats, an exhibition and information centre, workshops and training facilities.

The Victorian Terrace demonstration project aims to bring about a step change in the housing agenda by highlighting the significant contribution refurbishment can play in reducing UK carbon emissions and encouraging industry to raise standards of practice. The terrace now houses a permanent exhibition of the products used on this project and is open to the public.

Challenges

The existing building needed to be completely renovated and brought up to current day standards in terms of emissions, airtightness and insulation. The existing building was very unstable and a number of structural repairs had to take place. The wall reserved for the WALLTITE treatment needed to be pinned and, as a result, all the existing plaster was removed.

Solution

WALLTITE CL100 spray foam insulation from BASF Polyurethanes has been used to form an airtight, thermally efficient solution and a U-value of 0.24W/m²K. WALLTITE CL100 was spray applied to one of the walls in the presentation room directly onto the rough, bare brick substrate without the need for primer or levelling coat, to a thickness of 100mm. The strength of WALLTITE therefore helped to consolidate this very unsound surface.

To remove any concerns about potential thermal bridging via studwork or framing, the whole surface area of the wall was sprayed seamlessly and plasterboard fixed in front of the foam using a gypframe system. The in-situ spray applied WALLTITE CL100 system expands to seek and seal any gaps in the substrate, preventing air infiltration and air leakage.

