Case study

EST Trial, Whitley Bay, North Tyneside

Reduction in gas consumption by 37% giving a 1098kg reduction in CO_2 emissions, saving the homeowner £269 over the year

SPECSURE Lifetime System Warranty

Client
Energy Saving Trust (EST)

Contractor
MITIE Property Services

Products specified
GypLyner UNIVERSAL system incorporating:
Gyproc ThermaLine SUPER

The challenge

The aim of the project was to demonstrate the effectiveness of solid wall insulation in reducing carbon dioxide (CO_2) emissions and fuel bills, making homes more efficient and comfortable places to live. The results of the trial help in beginning to address the large number of solid walled homes that remain un-insulated. This includes most properties built before the 1920's, for which cavity wall insulation is not an option. Finding efficient and effective ways to insulate all properties is of increasing importance due to rising fuel costs and government pressures.

Project details

The Victorian terraced home was insulated by British Gypsum in partnership with parent company, Saint-Gobain, as part of a project by the Energy Saving Trust (EST). The EST field trial was set up to gain a better understanding of the in-situ performance of various types of domestic solid wall insulation being installed in the UK.

The solution

To form an internal wall insulation system at the property, British Gypsum's GypLyner UNIVERSAL isolated metal frame wall lining system was installed. This was ideal for refurbishing the existing poor quality walls and also provided a clear cavity to accommodate cabling and heating pipes. Gyproc ThermaLine SUPER, a high performance thermal laminate plasterboard, was screw-fixed onto the GypLyner UNIVERSAL system and in order to prevent any air movement, Saint-Gobain Isover Acoustic Partition Roll (APR1200) was added into the cavity.

Gyproc ThermaLine SUPER is a thermal laminate plasterboard used for wall refurbishment and room-in-the-roof applications where a substantial upgrade in thermal insulation is required. GypLyner UNIVERSAL wall lining system is a virtually independent metal frame drylining that is suitable for all internal non-loadbearing applications.

The results:

Comparing data collated pre and post insulation, the trial found that yearly gas use has gone down by 36.7%, which equates to a 1098kg reduction in CO_2 emissions from the property and a saving for the homeowner of £269 over the course of a year.

"As is typical with properties of this age, the building is made up of solid walls making the most common retrofit method of insulation, cavity wall, impossible. The Victorian architecture on the front façade of this terraced property also meant external insulation would impact on the overall appearance and planning permission would have had to be sought, which can cause its own challenges and can often lead to a delay.

For this property the walls were insulated internally using a solution consisting of British Gypsum **GypLyner UNIVERSAL** metal walling system and 60mm of Gyproc ThermaLine **SUPER**. As a cost-effective, general purpose system **GypLyner UNIVERSAL** was ideal for this project. Gyproc ThermaLine **SUPER** was a key product for this project because of its high level of thermal performance. It is also good value for money, which was an added benefit.

Before the insulation, the owner of the home had frequently used an electric fire in addition to her central heating to maintain a comfortable living temperature. After internal wall insulation the same temperature could be maintained with central heating alone. The home also got warmer much more quickly, reducing the evening heating period by one hour."

Ian Gordon, commercial manager at MITIE Property services

BBA APPROVAL INSPECTION TESTING CERTIFICATION CERTIFICATE 13/5016

British Gypsum SAINT-GOBAIN