

Moray Street, Macduff: Insulation and Renovation Project



SUMMARY

The Moray Street Project involves local authority homes which have an extensive history of damp, condensation and fuel poverty, due to the poor insulation in the properties. These homes are built of solid granite and are hard to treat with traditional insulation techniques. This project uses a product Spacetherm as a solution to internal insulation in solid granite properties. This should help make it more affordable for residents to heat their homes and reduce their energy consumption.

BACKGROUND

Moray Street, Macduff

Moray Street is in an area at high risk of fuel poverty and high unemployment. The poor insulation of the properties means that tenants are unable to heat their homes to a sufficient level and the properties are prone to condensation and damp.

The properties identified in this project consist of 5 blocks each with four flats built in 1930.

Pilot Project at 34 Moray Street

This property was identified as a suitable candidate for the trial of Spacetherm.

In order to allow access to the external walls the kitchen, bathroom and heating system were removed.

The lath and plaster was then removed and all the debris was removed from the base of the walls to reduce the risk of thermal bridging.

Due to the uneven nature of the granite walls, wooden battening was used and the Spacetherm screwed into place.

The Spacetherm was treated with a fine surface treatment before painting.

Due to the nature of the Spacetherm the radiators were hung directly onto the wall.

Under floor insulation was installed using a encapsulated breathable insulation wall with flanges to allow easy attachment to the floor joists.

New kitchen and bathroom were installed to complete the renovation.



LOOKING AHEAD

Since the pilot Aberdeenshire Council have been awarded funding from the Energy Saving Trust.

This has allowed the Council to extend the project to the remaining 19 properties in the street.

In addition to installing the Spacetherm the flats will have new A rated condensing combi boilers installed. Externally the properties will be re-pointed, chimneys decommissioned, roof Lights removed and slate tiles repaired where required. New guttering and down pipes installed.

The ground level at the rear of the properties will be lowered to reduce any risk of penetrating damp.

As part of grant award Aberdeenshire Council are required to monitor the effectiveness of the insulation with data loggers to record the temperature and humidity.

This should help improve the quality of life for these residents by making their homes warmer and more enjoyable to live in as well as improving the energy efficiency of their homes.



KEY CONTACTS

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Proctor Group: <http://www.proctorgroup.com/>

Spacetherm: <http://spacetherm.com/>

TECHNICAL DETAILS

What is Spacetherm?

Spacetherm is a fibrous matting impregnated with silica aerogel which can be laminated to Fermacell, plasterboard or chipboard.

Are there any problems with condensation?

Spacetherm is hydrophobic by nature and does not pick up moisture. It has also been tested for fungal growth and is fungi resistant. As per ICOND condensation risk analysis the use of foil CVL reduces the risk of condensation on solid wall constructions.

How do you fix the product?

Spacetherm can be fixed to timber strapping using plasterboard screws or mechanically fixed to the wall with hammer screws or shot fired nails. The method will depend on the construction of the wall.

Is it an Eco friendly product?

The product does not use any blowing agents during manufacturing process. The heat generated during this is steam and is recycled back into the factory to keep it warm.