

Retrofit for the Future – A Story of Success

Vacutherm Ltd played crucial role in one of the Technology Strategy Boards Retrofit for the Future Competition. <http://www.retrofitforthefuture.org/>

When Cumbrian Retrofit for the Future competition winner, Roland Hill Ltd, needed innovative solutions to significantly reduce the carbon emissions of a 1930's semi-detached three bedroom house they turned to Vacutherm.

Target technical brief given:

1. Target wall U-values of 0.15 W/m²K utilizing external insulation
2. Ground floor insulation with minimal spoil to be removed from site.
3. Reduce carbon emission by 80%
4. Provide a 'whole house' integrated solution
5. Reduce running cost, address fuel poverty.

Vacutherm provided the following solutions

Stage One

- Installation of external wall insulation using 25mm Vacupor PS 10/10.
www.vacutherm.co.uk

This product is a vacuum insulated panel with polystyrene bonded to either side. The panels are simply bonded and / or clamped to the wall. The outer face is polymer rendered to give a strong and very durable weather seal.



- The advantage being that Vacupor PS gives a continuous, unbroken layer of vacuum panels which can encircle the dwelling.
- The target U-value of 0.15 W/m²K was achieved with an overall panel thickness of 45mm. This is class leading performance for minimal thickness of insulation. Solutions were also provided for water goods, door canopies etc.

Stage 2

- Remove badly damaged original floor slab.
- This was carried out utilizing 20mm of Vacupor Vacuum Insulation www.vacutherm.co.uk was placed under the floor along with edge insulation.
- This resulted in a U-value of 0.16 W/m²K for the completed floor slab.
- It also meant that minimal spoil had to be carted off site because of the remarkably thin insulation being used.



'We can't believe how warm and efficient our home is, we are the envy of the estate and feel like royalty' said the new owners.

This project clearly shows how early planning, design and communication can yield such an excellent result.

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