

### ParaClad™ Aerogel-Insulated Panel System Reduces U-Values of Mobile Home by 55% and Carbon Emission by 1 Metric Ton/Year

Exterior insulation installs quickly with minimal occupancy disruption.

Product Used  
Spaceloft™ 9251



#### Challenges

- Provide insulation for UK government program to upgrade insulation in mobile homes at a targeted cost.
- The insulation needed to improve the homes' U-values and reduce carbon emissions.
- Fast and cost effective installation was required.

Fabrication Partner  
Parasol Panel Systems LLP  
(www.parasolpanels.co.uk)

#### Aerogel Solution

- Parasol Panel Systems LLP designed a solution of ParaClad™ panels using Spaceloft™ 9251 to cover the mobile home exterior.
- The solution was composed of a double skin laminate over **Spaceloft 9251** with a total thickness of 13 mm.
- Two workers insulated the entire structure in two days with minimal occupancy disruption.
- The ParaClad™ panel system met U Value and other functional requirements.

#### Benefits

- The ParaClad™ panel system using Spaceloft 9251 cost-effectively met all energy targets. (Details below)
- Using thin Spaceloft 9251 insulation eliminated the need to modify window and roof fixtures, which would have been necessary with conventional exterior insulation.
- The increased transmission loss of the new wall has greatly reduced the noise level within the home.



#### U-Value and Energy Savings From Installation of ParaClad™ Panel System Using Spaceloft 9251 Insulation\*

- TU-value reduction: 0.54 W/m<sup>2</sup>k, (0.98 - 0.44 W/m<sup>2</sup>K), **a 55% reduction**
- Energy reduction: 3,500 kWhr/yr
- Carbon emission reduction: 950 kg/yr

\*Calculations performed using the SAP-approved software package Northgate Maxim 5.

