

REDCAR LIFEBOAT STATION



Client: Brierley Groom Chartered Architects
Main Contractor: Voase Builders
Approved EWI Installer: Pringle Building Services
Building Type: Brick Cavity
Project Size: 200m²
System: Heavy Duty NSC5 External Wall Insulation
Finish: VantagePro Silicone 1.5mm

Commercial Refurbishment | RNLI Redcar Lifeboat Station, Cleveland

REFURBISHMENT OF REDCAR LIFEBOAT STATION USING STRUCTHERMS HEAVY DUTY EXTERNAL WALL INSULATION

Project Background:

Redcar Lifeboat Station was built in the early 1970s by Teesside County Council and is rented to the Royal National Lifeboat Institution (RNLI). Constructed from brickwork the building had suffered from the effects of being located on the coast, including deterioration of the brickwork due to the salt water spray from the North Sea.

The lifeboat station also had very little insulation resulting in high fuel bills and cold night time temperatures for crews working night shifts.

Client Requirements:

The RNLI and Redcar and Cleveland Borough Council appointed Brierley Groom Chartered Architects from York to design a solution that would protect the building from the extreme weather conditions, improve the thermal performance and provide a much needed external facelift to the station.

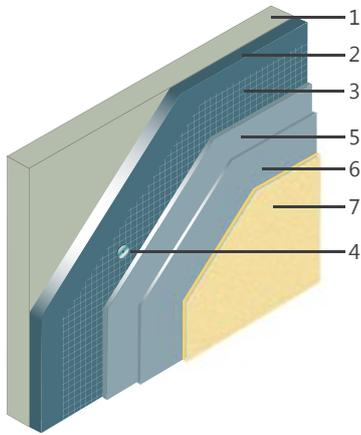
Design Solution:

Brierley Groom approached Structherm and after several technical discussions proposed a Structherm Heavy Duty NSC5 External Wall Insulation system with a striking blue VantagePro Silicone 1.5mm finish to the RNLI and Redcar and Cleveland Borough Council, who approved the proposal.

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STRUCTHERM'S EXTERNAL WALL INSULATION SYSTEM PROVIDED THE PROTECTION, THERMAL AND AESTHETIC QUALITIES REQUIRED

Heavy Duty System - NSC5



1. Substrate
2. 50mm Mineral wool insulation
3. Stainless steel mesh
4. Fixing
5. Basecoat render 8mm
6. Basecoat render 6mm
7. VantagePro silicone 1.5mm top coat finish

Structherm were able to demonstrate that the Heavy Duty NSC5 system was able to meet all of the clients requirements and had the relevant certification.

It consisted of a layer of high performance Mineral Wool insulation boards, 50mm thick, mechanically fixed to the main external elevations and the use of 20mm thick Phenolic insulation to the window and door reveals where space was limited.

Stainless steel expanded reinforcing mesh was then installed with Structherm Standard Basecoat applied in two coats. The first coat was applied 8mm thick and scratched with the second coat being applied at 6mm thick, smoothed and levelled.

To complete the system Structherm VantagePro Primer was applied followed by a Silicone 1.5mm protective top coat. The colour chosen

for the top coat was a striking sky blue which local fishermen have said gives Redcar a new landmark to help them find their way!

Results:

- The building is now protected from the elements by the heavy duty external wall insulation system and the protective Silicone top coat which is specifically designed for use in harsh environments.
- Thermal performance has improved greatly with the U value of the walls dropping significantly due to the new insulation.
- The contemporary Sky Blue finish has greatly improved the appearance of the building which now stands proudly on the Redcar coast.



Before refurbishment



After refurbishment



After refurbishment



Sky blue silicone textured top coat

