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BUILDING PRODUCTS

GRAIN SILOS TO HOLIDAY ACCOMMODATION "A SUFFOLK TAKE ON A NEW YORK LOFT"

Best practice case study

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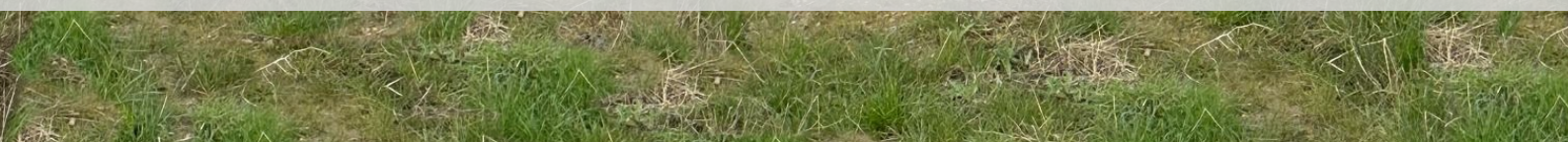

ELASTOSPRAY LWP Best Practice Case Study

Project data

Project: Two former Grain Silo units converted into holiday accommodation in Blacksmiths Corner, Belstead, Suffolk
Architect: KLH Architects
Client: Sarah Mindham
Main Contractor: Whitaker Contractors Ltd
Scope of Work: To convert these steel silo units into warm & comfortable holiday accommodation.
Foam Master Installer: Spray Insulations Ltd
Project Area: 500m²
Products Used: BASF Elastospray Low Warming Potential 1672/1 closed cell insulation

The decision to repurpose the former grain silos in rural Suffolk into unique holiday accommodation is both innovative and resourceful. By preserving the structure that is located in this scenic landscape, this upcycling initiative demonstrates a commitment to sustainability and creativity.

Challenges

KLH architects were tasked with converting and upgrading these two challenging steel structures into modern bespoke accommodation. An extremely difficult project, due to the complex steel structure and the unusual shape of the buildings. The architects required an insulation product that would have marginal impact on the living space, but have excellent thermal performance to comply with building regulations. Steel structures must also be sealed from condensation formation on the inner surface, ruling out many conventional insulations for the architect.

Solution

Following evaluation of the Elastospray LWP 1672/1 spray foam, KLH architects decided to specify this uniquely versatile material for use on the architectural silo buildings. Elastospray is a closed cell polyurethane insulation that was applied in layers of 50mm to a total specified thickness of 200mm. The product adhered directly to the steel structure, helping the designer to overcome the difficult condensation problems on the internal surface of the walls or roof. Due to the method of the application, our Foam Master applicator could easily configure the Elastospray insulation material to suit the shape of the building, while maintaining the required insulation thickness.

Belstead grain silo project was successfully completed by BASF approved Foam Master, Spray Insulations Ltd. Spray Insulations are installing BASF products across the UK using our full range of spray foam and cavity wall insulation.

Will Ludkin, the project designer told EADT "**It's a Suffolk take on a New York loft"** They considered themselves lucky to have a client who seen this as an exciting challenge, while also understanding the difficulty working with these structures.

"Grain silo conversations are more common in America, as part of the tiny house movement, but I'm unaware of any having been undertaken in the UK. They're inherently strong structures until you start cutting holes in them, so they require an internal support system. We've tried to maximize the view across the adjacent fields and onto the woodland beyond, allowing the building users to observe native Suffolk wildlife"

Not only did Elastospray provide an airtight blanket around this steel shell, it also provided a level of structural performance, assisting with the weaknesses in the structure caused by the introduction of windows and doors.

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