

Inside the Solution:

20 YEARS
2005-2025

Protecting a critical manufacturing asset. How a flame-free roof replacement secured Smurfit Westrock's balehouse for the long term.



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Case Study: Smurfit Westrock



The narrative

Smurfit Westrock's manufacturing facility in Stalybridge is a key part of its UK operations, producing corrugated packaging for a wide range of sectors. Within the site, the balehouse plays a central operational role, compacting and processing packaging products and waste materials. Over time, the balehouse roof had deteriorated through multiple historic overlays and long-term wear. The structure had become fragile, thermally inefficient and prone to leaks, with condensation forming around M&E services. While ongoing repairs kept the building in use, the underlying condition of the roof and deck meant that a full replacement was unavoidable.

The balehouse could not be taken out of service, as it is a live manufacturing area handling highly combustible cardboard materials, with continuous operations running beneath the roof. This brought fire-risk, asbestos, structural and access constraints into a single scheme. Strip-out works uncovered rotten decking, defective joists and asbestos packers embedded within the structure, turning a controlled asbestos removal into a licensed operation with added compliance and programme pressure. Historic roof-on-roof construction had masked deterioration to the deck, joists and steelwork, while extensive penetrations, pipework and large hoppers served plant that could not be shut down or removed. Throughout the works the building below had to remain operational and watertight, requiring internal crash decking, exclusion zones and close coordination between all parties.



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The challenge

The existing balehouse roof comprised multiple historic layers, creating a roof-on-roof construction that had to be fully stripped back before works could begin. This exposed rotten decking, defective joists, corroded steelwork and asbestos packers. What started as a controlled asbestos removal quickly escalated into a licensed operation, introducing new compliance requirements, specialist trades and unavoidable pauses, all while the building below remained fully operational and watertight.

Access and logistics added further pressure. Plant could not be shut down or removed, and extensive penetrations, pipework and large hoppers had to remain in service throughout. Working space was restricted, live delivery lanes ran alongside the site compound, and materials could only be brought in on a tightly controlled, just-in-time basis.

Maintaining segregation and protecting the manufacturing process was critical. Internal crash decking, exclusion zones and strict interface controls were required, while asbestos discovery forced re-sequencing of the programme. Daily coordination between Smurfit Westrock, Knight Frank, licensed asbestos specialists, M&E contractors, scaffolders and roofing operatives was needed to keep the project moving safely without disrupting production.



At a glance...

Client: Smurfit Westrock

Project size: 573m²

Location: Stalybridge, Tameside

System installed: Bauder Airtech

Programme: Jun - Nov 2025

Warranty: 20 years

In collaboration with:



Case Study: Smurfit Westrock



A fully flame-free, non-combustible roofing system was selected to remove fire risk. The existing roof was stripped back to the structural deck in phased sections to maintain continuous weathertightness. Defective joists were replaced, retained steelwork was treated for corrosion, and a new plywood deck was installed to provide a stable substrate for the new build-up.

A Bauder Airtech reinforced bitumen membrane system was installed using self-adhesive layers and hot-air welding rather than naked flames. BauderGLAS cellular glass insulation was introduced in a tapered formation to improve drainage, thermal performance and load-bearing capacity for roof-mounted plant and ducting. Extensive detailing was formed around large hoppers, ducted services and penetrations using independent upstands and hybrid felt-and-liquid interfaces where membranes alone could not achieve continuity.

Works were tightly sequenced and delivered on a just-in-time basis to manage restricted access and live delivery lanes. Licensed asbestos specialists were integrated into the programme when asbestos packers were discovered, with affected zones paused and works re-sequenced to allow progress elsewhere. New technology was introduced through the e-torch hot-air welding system. Manufacturer-led training was provided before site deployment. This marked the first full-scheme use of e-torch technology by LRL.



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