

The Client:

Blackburn with Darwen Council

The Problem:

- A wide variety of houses built in the early 1900's with either **sub 50mm cavities or cavities of variable width, or having no damp proof courses**, which cannot be insulated with standard insulation measures
- Structural problems caused by failing wall-ties due to water penetration into the cavity
- Unsuitable for traditional cavity insulation measures due to exposure to high wind driven rain conditions
- Unsuitable for external wall insulation due to planning restrictions and structural problems
- Unsuitable for internal wall insulation due to unacceptable disruption of tenants and costs of relocation

The Solution:

- Technitherm® was injected into the sub 50mm and variable width cavities, providing a full fill and excellent insulation value at a fraction of the cost of external wall insulation
- Technitherm® has a polyurethane (PUR) closed cell structure that has an inherent high resistance to wind driven rain penetration, and is the perfect barrier to keep rainwater out and the internal fabric of the building dry
- The draught-proofing properties of Technitherm® enhanced the energy savings and improved the living comfort of the tenants
- The structural properties of Technitherm® eliminated the extra costs of replacing all the faulty wall-ties

The Outcome:

- Blackburn with Darwen Council have a cost effective method of insulating privately owned housing stock, suitable for a wide variety of housing types
- The residents have warmer, more comfortable homes and lower energy bills
- The lifetime of the properties is extended
- All installations are covered by a 25 year insurance-backed warranty

Stuart Pye, Housing Support and Customer Services Manager said, "The housing stock in Blackburn with Darwen has thousands of Hard To Treat Homes that without Technitherm® would not be able to be tackled economically. The use of Technitherm® all-in-one system solution has helped Blackburn with Darwen to develop sustainable refurbishment solutions for poorly performing, difficult to treat privately owned properties. It has done this by providing fabric insulation, draught proofing and increased life span of the fabric of the building - together with improved thermal performance to substantially reduce energy demand and wastage through the building fabric. This has resulted not only in consequent significant financial cost benefits to the residents but, in addition, the solution also provides high resistance to wind driven rain penetration overcoming damp problems associated with these properties, thereby improving the health and wellbeing of the residents of Blackburn with Darwen."

