

**The Client:** Liverpool Housing Trust.

**The Problem:** When gale force winds ripped the brick cladding from a 1960s tower block, immediate action was called for. Several more blocks were surveyed and it was revealed that up to 70% of the wall ties were missing.

**The Solution:** To minimise disruption to the tenants, **Technitherm®** structural polyurethane foam was specified, to glue the inner and outer walls together. The foam is mixed and injected with a hand-held gun, through holes drilled into the mortar joints, on the outside of the building. Starting off as a liquid the foam then expands and sets in the cavity, to form a continuous structural connection between the inner and outer leaves. It has been used successfully in the past to treat properties with weak mortar joints, corroded wall ties, poorly fitted cavity insulation and hollow block inner leaves, where previous attempts at stabilisation with mechanical fixings had failed.

**The Outcome:** Polyurethane foams happen to be the most efficient insulating systems, thickness for thickness, on the market. This means the walls were brought up to current Building Regulation standard and in so doing, will save up to 25% in energy bills. Because **Technitherm®** foams "in situ" it fills cracks and gaps to add to the draught proofing and its closed cell nature prevents penetration from the driving rain.

Recent developments in the foam formulation now means **Technitherm®** is CFC and HCFC free, with a zero ODP ( Ozone Depletion Potential ) rating.

