

# PRODUCT GUIDE



STRUCTURAL REFURBISHMENT AND RESTORATION



For more than twenty years Clan have provided their clients with a complete service in the field of structural engineering and remedial works to both the public and private sectors. Contracts undertaken have been diverse, from tower blocks and listed buildings to water treatment works and local authority housing estates.

# SUCCESS BUILT ON INNOVATION

Since the early 1980's, Clan have been at the forefront of remedial cavity wall tie technology designing new remedial wall ties, the Kontrakt tie, lateral restraint systems, the Clanbolt, and the unique isolation process for treatment of corroding wall ties, the Clansleeve.

Over the years as we have been confronted with new problems within the refurbishment industry, we have introduced innovative solutions designed in conjunction with our structural engineers, with not just the specifier in mind, but also the contractor. A good product not only overcomes the structural problems but is simple to fix reducing operator error. All of our products are designed in accordance with the basic principles that Clan adhere to; a quick, simple and virtually unobtrusive repair.

In addition to our own range of structural fixings, Clan have brokered relationships with many European companies, exchanging ideas enabling us to introduce new methods of repair, such as Xypex crystalline waterproofing, high strength concrete repair materials and the latest carbon fibre technology for repairing structures.

Our range of services is continuing to grow with our sister company, Thin Joint Technology, which supplies tools, fixings and mortars for construction using thin jointed aerated blockwork. TJT also supply coloured render systems, external wall insulation systems and decorative plasters.

## MAPEI, CLAN & URBAN SPLASH – MORE THAN A MATCH



**In its heyday, the Bryant & May factory in Speke, Liverpool manufactured 160 million matches a year. This beautiful art-deco, Grade II listed building, is part of Liverpool's industrial history.**

It was built in 1919 to a design by engineer Sven Bylander and architects Mewes and Davis. It was acquired by Bryant & May in 1923 to make matches from imported Canadian aspen and wild poplar. Its most notable architectural feature was the absence of beams supporting the floors and roof. The building holds a unique position in British architecture as it was the first time flat slab concrete floors had been used in the United Kingdom, a fact which influenced its listing as Grade II.

Urban Splash, engaging the services of award-winning architects Shed KM, have undertaken the transformation of the building into a high-quality business park for offices, call centre and leisure use. From the initial survey it was evident that the external concrete columns and beams would require extensive repair to reinstate them to their original condition. Urban Splash and Clan with the help of the Mapei technical department decided on a schedule of repairs to the main structure which was based on the use of products from the Mapegrout range. After the removal of all loose and damaged concrete, the whole building was blast cleaned to remove existing finishes and to prepare the steel reinforcement to accept the repair treatment.

Mapefer corrosion inhibitor was applied to all exposed steel prior to the application of Mapegrout repair materials. A combination of materials was used depending on the depth required and the



From the road the Bryant & May building looks as it did in its prime and it is once again a major landmark of the Liverpool skyline. It forms a very recognisable feature when viewed from the air from one of the many aircraft taking off and landing at the nearby Liverpool Airport.

preferred method of application. Following the reinstatement of the structural concrete, the whole of the façade was given an application of Mapefinish levelling coat to obtain a uniform finish throughout. The façade was then given a protective coating of Elastocolour anti-carbonation paint to its original colour scheme. To create the suspended steel mezzanine floor, it was necessary to accurately diamond drill each of the columns to allow a 75mm solid steel pin to be grouted into position using MAPEFIL non shrink anchoring grout. The new floor beams were then fixed to these pins between the columns and the floor suspended on the new main beams.

MAPEI supplied specially pigmented paint to match the original colour of the red Lancashire roses which decorate the top of every external column. Between the columns, over the windows are panels of glazed ceramic tiles many of which were cracked or missing. Clan commissioned tiles from Italy for the restoration of these panels which the architects decreed should match exactly in colour and texture the existing tiling scheme. The tiles were fixed using MAPEI adhesives and grouts.

From outside the building the front looks completely original, its historical façade unchanged. However to accommodate the new use, six service pods were erected at the rear of the building. These space age metal pods carry the heating and ventilation plant and house toilet and kitchen facilities for the individual office units.

### TECHNICAL DATA

**Project:** Bryant and May Match Factory, Liverpool, England

**Built:** 1919

**Commissioned by:** Urban Splash Developments

**Architects:** Shed KM

**Structural Engineer:** Roy Billington Assoc.

**Main Contractor:** Urban Splash

**Sub-Contractors:**

*Concrete Repair:* Clan Contracting Limited, Liverpool

*Ceramic Tiling:* Clan Contracting Limited, Liverpool

*Window Replacement:* Rea Metal Windows, Liverpool

*Mezzanine floor installation:* Merseyside Ship Repairs

**Mapei products used:**

For the concrete:  
MAPEFER  
MAPEGROUT  
THIXOTROPIC  
MAPEGROUT RAPIDO  
MAPEGROUT  
COLABILE  
MAPEFINISH  
ELASTOCOLOUR

For the installation of the floor support bearings:  
EPOJET  
MAPEFILL

For the ceramic tile repairs:  
GRANIRAPID  
ULTRACOLOUR

**FOR SALES AND TECHNICAL ADVICE, PHONE: 0151 422 8000**



Unit 3  
Albright Road  
Speke Approaches Industrial Estate  
WA8 8FY  
Liverpool  
L6 1AU

Tel: +44 (0)151 422 8000

Fax: +44 (0)151 422 8001

E-mail: [sales@clan.co.uk](mailto:sales@clan.co.uk)

Web: [www.clan.co.uk](http://www.clan.co.uk)