



# SIKA AT WORK

## MELLOR BROOK, STOCKPORT

WATERPROOFING: SikaProof® and Sika® Watertight Concrete

BUILDING TRUST



# MELLOR BROOK, STOCKPORT



**NEW LUXURY DEVELOPMENT PROTECTED BY SIKA.** Sika products have played an important role in ensuring that Mellor Brook, an exclusive new development constructed by award winning PH Homes, will remain watertight. The development near Stockport consists of 12 properties, seven of which are built partly into the hillside, with the rear gardens being at first floor level.

To ensure that these properties in the village of Mellor are protected against water ingress and remain habitable, the retaining wall and floor slab were constructed using a dual system from Sika Limited. This consisted of SikaProof® A12, a totally new concept in membrane barrier design, together with the Sika® Watertight Concrete system. This was to ensure complete watertightness of the ground floor, adhering to the principles laid out for Grade 3 of BS 8102:2009.



# MELLOR BROOK STOCKPORT



The membrane surface of SikaProof® A is embossed with a grid pattern, which contains a sealant, and is topped by a thin layer of fleece which forms a mechanical bond to the concrete when it dries. The grid pattern is also unique. It offers additional protection, due to the integrated sealant, which bonds tightly with the surface of the concrete, forming mini watertight compartments. Therefore, even if the membrane is damaged or pierced, moisture or pressured water cannot spread between the membrane and the concrete structure as it is contained within the small damaged grid square.

In this 'belt and braces' construction, the Sika® Watertight Concrete system was used. Sika® Watertight Concrete, which was supplied by Hope Construction Materials, is a high quality solution for below ground and basement construction that prevents water from migrating through the concrete. State-of-the-art Sika admixtures work within the concrete, firstly to reduce the water/cement ratio, thus increasing the density of the mix and minimising the size, volume and continuity of the concrete's pores, and secondly, fill the remaining pores.

This also helps with the placing of the concrete and ensures a completely watertight finish. It is a cost effective system, saving time at the design and construction stages and is backed by a Sika warranty and a 50 years successful track record. Another benefit in areas such as this, the overdig requirement is kept to a minimum, providing the maximum usable space.

Construction joints on the project were sealed with Sika® Tricosal® Metal Waterbar. This consists of a galvanised metal sheet with a layer of composite film on one side that bonds closely and permanently to the concrete. This acts as a physical barrier to the passage of water through the joints.

The Sikadur® Combiflex® Jointing System was used to seal the movement joints. This consists of a Sika® Hypalon Strip and Sikadur® -31 epoxy resin adhesive. Combiflex Hypalon Sheet is a highly elastic, rot-proof and chemically resistant sealing sheet that is fixed with Sikadur® -31, an epoxy resin based adhesive that establishes a strong bond to the substrate.

With this small exclusive housing development now complete, Sika has once again provided a proven, high performance waterproofing solution that will ensure these luxury homes will stand the test of time.



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OHS 585274

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