



Appleby-in-Westmoreland Co-Op Office Refurbishment



When a disastrous flood swept through picturesque Appleby-in-Westmoreland, engineers and contractors carried out urgent repairs to ensure that the town's flood-hit Co-operative store could reopen as soon as possible.

Floodwater left the store's original suspended timber floor unsafe, so a time-saving solution using Leca® Insulation Fill, which is manufactured by expanding clay at high temperatures, was devised to ensure the floor could be reinstated and the store reopened without delay.

The project involved removing the damaged timber flooring and filling in the void beneath with Leca® Insulation Fill, acting both as insulation and an infill material, prior to the installation of a new solid floor screed.

FACTS

Amount of material: 130m³ of Leca® Insulation Fill

Interesting Fact: Leca® Insulation Fill 50L bags was specified to carry out urgent repairs to ensure that the town's flood-hit Co-operative store could reopen as soon as possible.

Delivery Method: Pneumatic pump

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With the property backing on to the River Eden, the only available access was up steps through the front entrance of the store, which is the key provider of food shopping for the local community.

Because of the total absence of on-site storage, the need to reduce loadings on the existing structure and the requirement to achieve re-opening within the tightest time frame, consulting engineers BDN Ltd, of Durham, specified Leca® Insulation Fill, which was pneumatically delivered to the point of use by the Leca pump truck.

Approximately 130 m³ Leca® Insulation Fill in 10-20 mm grade was used to fill the 800 mm deep void with just two labourers from main contractor Castle Construction North East Ltd, of Middlesbrough, required to level the material, then compact it using in a mechanical vibrator plate. The entire wooden floor was removed and replaced with compacted LWA in less than three days.

By specifying Leca® Insulation Fill, BDN achieved an estimated time-saving to the overall construction programme of 50 per cent when compared to using traditional fill, which would have been impractical because of its weight and the limited access to the store.

Comments Colin Dorman, Director of Castle Construction: "The use of Leca® Insulation Fill enabled us to save a lot of time on the contract, which was completed in two weeks compared to original estimates of at least one month."

The solution also ensures that, in the event of ingress of water in the future, it will drain freely through the LWA with no capillary action and, consequently, a much reduced threat of flooding or damage.