

technitherm®

Cavity Wall Insulation with Flood Resilience

The Client:

Severn Trent Water, Homesford, Derbyshire. Installed by Websters Insulation Ltd

The Problem:

Homesford Water Treatment Works, operated by Severn Trent, has a capacity of 65 million litres per day. It supplies Nottingham via the Derwent aqueduct, and was shut down for one day in summer 2007 as the river Trent overflowed and flooded the groundwater source and a building. In this case, no equipment was damaged and operations restarted once the river level fell. The connectivity of the water supply system meant that consumers in this area experienced no loss of supply.



However to illustrate the risk, the closure due to flooding of Mythe WTW (supplying water to Gloucestershire) resulted in a major water supply emergency and 350,000 consumers losing drinking water supplies for 16 days. Overall, summer 2007 flooding hit east, west and south Yorkshire, east Lincolnshire, north Nottinghamshire, Worcestershire, parts of Warwickshire, Gloucestershire, West London and the Thames Valley. River flows in many areas set new "all time" or summer records. The Environment Agency has reported that in total about 48,500 households and 6,900 businesses were flooded during this period.



Severn Trent Homesford realised that any repeat of these events, with a rise in the Trent level of as little of 9 inches, could put at risk their expensive and sensitive filtration equipment, and compromise their ability to supply Nottingham with clean water.

The Solution:

Technitherm® was installed into the 50mm brick-brick cavity wall to a height of 1.5m, to protect against an anticipated maximum flood height of 1.2m. Working alongside other flood protection measures, Technitherm® prevents any seepage through the walls to ensure that this vital facility is safeguarded against future flood events.

The Outcome:

Technitherm® is shown to be the best performing type of cavity wall product according to a report on Flood Protection issued by DEFRA, DCLG and The Environment Agency. The report states that cavity wall insulation should be rigid closed cell materials, as these retain their physical integrity and have low moisture take up when exposed to flood waters: www.planningportal.gov.uk/uploads/br/flood_performance.pdf (Table 6.2, p75).

Flood data courtesy of OFWAT.

Visit our website www.isothane.com, and view the Technitherm® movie

T 01254 872555

E info@isothane.com

© Isothane Ltd 2012

isothane