



Construction Technology Services – BRE East Kilbride

This leaflet provides information on the key research, test and consultancy services offered by the Construction Technology team at BRE East Kilbride.

Masonry

Frost Resistance of Masonry: Advances have been made in understanding the mechanisms of frost damage and the relationship between accelerated tests and severe service conditions. A frost damage risk index is being developed. This will allow selection of bricks and other masonry safely for use in various locations of the country



Testing masonry for frost resistance

Cracking of blockwork: Problems of cracking of lightweight blockwork cause concern and can result in air leakage problems. The expertise gained by the team from this work is used to address these problems.

Mortars & renders: Badly applied or poor quality mortar and render result in major masonry problems e.g. rain penetration or aesthetic problems. The team has experience of these materials including specification, materials properties, composition, laboratory testing and use in buildings. This includes both modern materials and lime mortars traditionally used in historic buildings.

Water repellents: The team has considerable experience of the performance of water repellent treatments for brickwork and stone. Differences in performance of various treatments have been assessed using water spray rig as well as British Standard tests. Advice can be provided on all aspects of water repellent use.

Concrete

BRE is a leading centre for research on concrete in the UK. The team is undertaking research on durability in contaminated land, the use of admixtures, and the performance of water repellents for concrete. A new project is looking at risks involved in reusing contaminated construction and demolition materials.

Stone

Stone offers great potential for use as a modern building material but it is not without problems. The team undertakes consultancy work including site surveys, sampling and testing, on a range of problems associated with stone masonry for both historic buildings and new build projects.

Timber

The team has considerable experience of the performance of double-glazing units in timber window frames. Work on the performance timber and timber finishes. This includes trussed rafters and performance of finishes in severe environments.

Glass

BRE has extensive experience of the performance of double-glazing units and can advise of failure and remedial works. Other glass problems such as those associated with toughened and laminated glass are regularly investigated.



Rotary water spray equipment

Moisture movement and durability

The transport of moisture within building materials is an important factor associated with durability problems. Understanding how moisture will move can help in the development of guidance for minimising risks. Our team has expertise in applying moisture movement theory to addressing a range of durability problems.

For further information, please contact:

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