



BSI Standards Publication

Methods of test for masonry units

Part 22: Determination of freeze/thaw resistance of clay masonry units

National foreword

This British Standard is the UK implementation of EN 772-22:2018.

BSI, as a member of CEN, is obliged to publish EN 772-22:2018 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee voted against its approval as a European Standard.

The UK committee submitted a negative vote due to the following concerns.

Within the UK:

- a) all Category F1 classification clay masonry units (see subclause 10.2) have been found to perform at similar durability levels regardless of the number of freeze/thaw cycles they achieve when tested against the requirements in service of EN 772-22:2018. Furthermore, there is no body of evidence for identifying the appropriate practical use of bricks assessed as not having failed after a specific number of freeze/thaw cycles within a test panel – therefore it is not considered appropriate for UK manufacturers to include the number of cycles achieved in a test for F1 clay masonry units. Consequently, in respect of the F1(n) classification, the (n) value is typically not quoted by UK manufacturers.
- b) the Category F2 classification (see subclause 10.2) is recommended for use in areas with a high risk of saturation with freezing (MX3.2 – see Table A.1 in BS EN 1996-2:2006 *Eurocode 6 – Design of masonry structures – Part 2: Design considerations, selection of materials and execution of masonry*) and all exposure conditions of lesser degree (see Table 15 in PD 6697:2010 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*). The Category F2 (80°C) classification in the UK is intended for specialist areas. Therefore it is not expected that this classification will be widely used, compared to the current F2 category.
- c) there are industry concerns with the restrictions placed on the use of joints formed of neoprene rubber or similar for test panel construction (see subclause 8.1). A mortar joint adds a greater number of variables including products and workmanship to the test, which could impact the results. There is also industry concern that the use of mortar joints could make it more difficult for manufacturers to determine whether damage was attributed to the freeze/thaw cycles or to the dismantling of the test panel.

The UK participation in its preparation was entrusted to Technical Committee B/519, Masonry and associated testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

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