



Technical Guidance

Movement joints in clay brick masonry

Question

The NHBC Standards clause 6.1 – D3(g) says that the spacing of movement joints in clay brickwork should be 12m (15m maximum). In what circumstances can 15m spacing be accepted?

Considerations

- BS 5628 : Part 3 'Code of practice for use of masonry' refers to movement joints at 12m spacing for unrestrained or lightly restrained walls e.g. parapets and non-loaded spandrel panels built off membrane type dpcs and 15m maximum spacing for normal storey height walls.
- The orientation of a wall in relation to the sun will influence the degree of thermal movement.
- Window and door openings in the brickwork can induce local stress points leading to cracking around the openings.
- The brick manufacturer's recommendations should be taken into account.

Answer

It is the designer's responsibility to ensure movement joints are designed to suit the actual layout and design of the structure. The following should be taken into consideration:

- Where brickwork is in large panels with no significant openings movement joints may be provided at 15m maximum spacing.
- Where brickwork is lightly restrained and/or contains a number of window and door openings movement joints should be provided at 12m maximum spacing.
- Additional movement joints may be required where the aspect ratio of the wall (length : height) is high, e.g. more than 3:1.