Built-in nest boxes

(May 2024) (Second issue - supersedes April 2022)

Question

What issues should be considered regarding the use and installation of bird and bat nest boxes in external walls with a cavity and external leaf of masonry?

Considerations

- The installation of built-in nest boxes should not adversely affect the weatherproofing, thermal insulation, and fire performance of the external walls.
- The nest box should be constructed from durable materials that will last the life of the wall it is to be built into. Nest boxes made from MgO and $MgSO_4$ boards or similar materials are unacceptable.
- Full fixing instructions should be provided with each nest box together with recommended installation zones in the external walls to suit the species of bird, bat or animal it is designed to accommodate. Additional guidance is available from BS 42021 'Integral nest boxes: Selection and installation for new developments – Specification'.
- Proprietary nest boxes are available in a variety of sizes and projections into the cavity with some extending into the inner leaf.

Answer

Some boxes have an integral cavity tray, but most are flat topped and require a separate cavity tray. The tray should be sealed to the box where it passes through the outer leaf and should extend at least 150mm beyond the box on both sides. Where the nest box is located under a roof overhang that fully protects the box against rain penetration a cavity tray is not required.

Where the wall is insulated with full or partial fill insulation the nest box should have a small projection and a strip of insulation should be provided between the box and inner leaf to avoid cold bridging. Nest boxes that project fully across the cavity, or are built into the inner leaf, should only be used in uninsulated sections of wall e.g., at roof void level, or where the wall is insulated within the inner leaf as in an insulated spandrel panel or where insulated dry lining in used.

Nest boxes that project into both the outer and inner leaf should not be installed in timber framed structure with a brick outer leaf as the differential shrinkage of the inner leaf could lead to damage to the box and potential water ingress.

Where a rendered wall finish is to be extended across the front of the box, the front of the box should have a surface suitable for the receipt of the render. A reinforcement matting should be included in the render and extended into the surround render in accordance with the render manufacturer's recommendations on crack prevention over dissimilar backgrounds or stress points.

Any brick slip finish should be fixed in accordance with the nest box manufacturer's recommendations.

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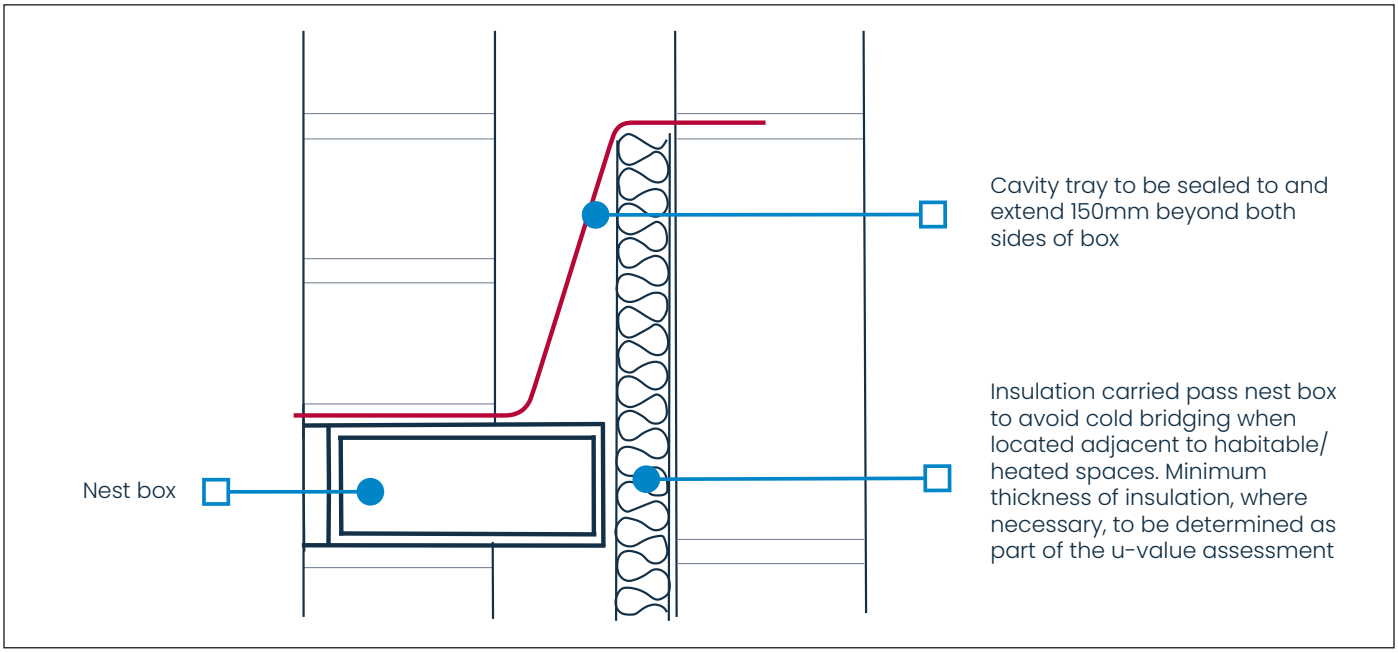

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