# TECHNICAL C13



### APPLICATION & CONSTRUCTION FCO HABITATS BATS AND SWIFTS

#### **ECO HABITATS FOR BATS**

In the UK there are 17 species of bat, all of which are protected by law. Ibstocks range of bat boxes helps to encourage safe habitats for these remarkable mammals allowing them to live in harmony with people.

#### FREE ACCESS BAT BOX

This is a single brick, 215x102x65mm, available in any of Ibstock's brick range, with a void allowing bats to enter the cavity of a building. The brick is positioned into the outer skin of brickwork as normal with the aperture at the bottom. The shoulders of the brick should sit on mortar but where the aperture is situated no mortar should be present to impede the aperture height.

Consider where bats could get to once inside the cavity. They cause no damage but some species prefer hanging from timbers, some need some flying space. Ideally this entrance brick can be used in outbuildings however with careful consideration, there is no reason why bats cannot live in a building designed to maintain airtightness but allow space for bats to shelter.

Bats tend to hibernate between November and March so a quiet environment during this period is required.

### **ENCLOSED BAT BOX**

This is designed specifically for the Pipistrelle bat. Pipistrelles are crevice dwellers and this design replicates the type of environment they would head for in nature.

Available in all brick types in the stretcher bond design, or can be a single block in red, blue or buff with the option of a bat motif (more to warn us of the possible inhabitation by a bat rather than a guide to the bat its-self).

Sizes available are 215 x 215mm or 215 x 290mm (215 x 290mm pictured).

The front cover is mortared into place so the unit is not intended to allow inspection. Opening a bat box is inadvisable in case of inadvertently harming the inhabitants.

Bats do not like draughts so the sealed design of the box is ideal. Place 4 or 5 metres from ground level close to trees or hedgerow as bats prefer to enter their nest under relative cover. They can also use these for echo location. However the approach to the box should be clear of obstacles such as ivy, tree branches etc.



Two to four boxes should be close-by but facing different directions to make the most of different temperatures dependent on time of year. Bats like constant temperature and humidity. Positioning to avoid prevailing wind and rain should be considered.

For further information on encouraging and living alongside these remarkable creatures contact the Bat ConservationTrust.

### **ECO HABITATS FOR SWIFTS**

Swifts come to the UK for just a few months each summer from Central and Southern Africa. Despite legal protection their numbers are declining. Since Roman times they have made their homes in man-made buildings however they are finding it increasingly difficult to find nest sites in modern or refurbished buildings due to the effective sealing of the eaves.

Swifts often bond at a year old but only start nesting at four. They pair for life and will return to the same nest site year on year. The oldest recorded swift was 21 years old according to the RSPB.

With advice from The Swift Conservation organisation and designed by a swift colony owner and expert the lbstock Swift box has been designed to accommodate swifts unusual nesting requirements.

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## APPLICATION & CONSTRUCTION ECO HABITATS **BATS AND SWIFTS**

The Ibstock Swift box is not intended to open for inspection. There is no need to maintain or clean the nest boxes. Historically swifts use the same place for years and the cleaning of their nests by humans is not required. Other creatures such as moths will eat insects or detritus from the nest. Faecal matter is disposed of by the parents during their care of the chicks. Never disturb the birds while nesting as it will encourage them to desert the nest and chicks.

Swifts like company so a few boxes clustered together is ideal for them. They need to be at least 5 m from the ground just under adequately overhanging eaves so they are never in direct, strong sunlight. It is

also not advisable to have the flight path obstructed by trees or have anything growing up the house near the boxes as predators can use it as a climbing frame.

Swifts drop into the air on leaving the nest box so placing it on a single storey building is inadvisable.

Ideal positions are North, Northeast or Northwest. Southerly facing walls can heat up too much in the summer even with the protection of the eaves.



### Swift boxes conform to BS 42021-2022 Integral Nest Boxes.

The aperture for the swift box must always be positioned near the bottom. Chicks will congregate around the aperture close to fledging, stretching their wings in readiness.

The unit can be mortared into the external leaf of a cavity wall and is sized at  $326 \times 140$ mm, a brick and a half long and two bricks high for bonding with the rest of the brickwork. The box is 145mm in depth so will extend into the cavity. It is recommended a cavity tray is fitted above. The addition of TOP sprayed onto the box, demonstrates the correct way when laying in brickwork.

### **GENERAL TECHNICAL ADVICE**

For all of the Eco-habitats the mortar mix should be the same as the surrounding brickwork. Generally a Mix 2 or Mix 3. Ibstock's Technical Helpline can advise on selecting the most appropriate for the selection of brick and location.

Mix 2	Mix 3
I part Portland Cement	I part Portland Cement
½ part Lime	I part Lime
4½ parts Sand	5 or 6 parts Sand

Fully fill the bed joints and perpend with mortar and do not use recessed mortar joints.

The bricks on bat box design 'B' can be pointed at the same time as surrounding brickwork to maintain consistent mortar colour.

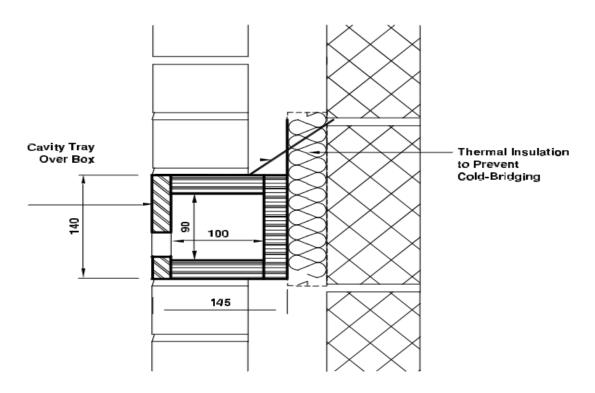
With the correct selection of mortar and placement of the unit no further maintenance is required, so just sit back and await the arrival of your new neighbours.

### RETROFITTING

In terms of retrofitting an eco-habitat, it will depend upon the existing external wall that the box is to be fitted into. It may be a solid brick wall (depending on the age of the property) – in which case it will be more of a challenge to retrofit an eco-habitat unit. In the case of an existing cavity wall of brick/cavity (with insulation or not)/inner concrete block skin for example, the wall would need to be inspected to assess the depth of the cavity and whether there was enough room (i.e. depth) available for the box to be installed. Any builder should be able to open-up the wall to assess the available cavity depth and overall construction.

The range of bat boxes are 102mm deep, so will be flush to a standard cavity wall. The swift box however is 145mm deep, so further design and detail must be taken into consideration.

There should be a strip of insulation fitted to the rear of the cavity (directly behind the swift box) – to prevent any cold bridging and a new cavity tray fitted above the unit (with weepholes etc) to discharge outwards any water within the cavity from above.



### Vertical Section (Scale 1:5)

For retrofitting installation into a brick-slip system, the above eco-habitats can be incorporated into a brick-slip ventilated rainscreen façade however this will require the box to be independently supported & restrained to the inner wall construction.

For any enquiries relating to rainscreen facades and our eco-habitats, please contact Ibstock Design Service <a href="Design@ibstock.co.uk">Design@ibstock.co.uk</a> in the first instance for expert advice.

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