# **ECO-HABITATS**

BY WIENERBERGER HABIBAT



## WIENERBERGER

Founded in 19<sup>th</sup> Century Vienna, Wienerberger is a leading provider of wall, roof and landscaping innovations. Today, we have 197 production sites in 30 countries. In the UK, Wienerberger have 14 production sites and six distribution depots, with our head office in Cheadle, Cheshire.

With in excess of 1000 products across wall, roof and landscaping categories, we offer building solutions across the whole envelope. From the latest in construction innovation to traditional handmade and heritage techniques, we're able to provide our customers with a whole suite of added value systems and services.

As a company, we believe that everything we do should make a lasting contribution towards creating a better quality of life.

Find out more about our products and services at www.wienerberger.co.uk

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Hedgehogs, Bug

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Why Eco-Habita

Case Study

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## ECO-HABITATS

Wienerberger have partnered with Habibat, specialist ecological consultants, to provide the most comprehensive range of Eco-habitats available on the market under the brand name 'Wienerberger Habibat'.

Wienerberger Habibat integrated wildlife boxes provide durable and discrete habitats for British birds, bats, bees, bugs and hedgehogs, increasing a projects biodiversity value and complementing eco-friendly building designs. All Wienerberger Habibat boxes are produced in the UK to standard brick and tile sizing for ease of installation.

#### Durable and long lasting

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One of the main advantages Wienerberger Habitat wildlife boxes have over competitors is their ease of application and durability. They can be supplied to either match seamlessly into the fabric of a building or produced to a contrasting colour to identify the wildlife box to onlookers. Although there are cheaper alternatives in the market place, those products will not last the 30 years required to comply with biodiversity net gain. The responsibility of the maintenance and repair of these cheaper options would far out way any saving of the initial cost of a Wienerberger Habibat product.

#### Made to order for your specific requirements

Our wildlife boxes can also be faced in any brick type, regardless of manufacturer, stone finish or suitable for render. By being produced using the same masonry, the product is able to expand and retract with the building, making it a durable and long-lasting option compared to market equivalents.

For more information on our range of eco-habitats or to discuss your requirements, please email ecohabitats@wienerberger.co.uk













Great Tit (see page 15)





















## BREAKING DOWN BIODIVERSITY MISCONCEPTIONS

# Biodiversity net gain is costly and complicated

Architects and specifiers now have access to a wide range of measures to help achieve the necessary ecological enhancements and ensure biodiversity net gain, some of which are simple and cost-effective. Often these will work together to help contribute to the net gain required. This includes fuss-free and inexpensive solutions such as Eco-habitats, which can be introduced to provide durable and discrete habitats for British birds, bats and other species.

# Biodiversity net gain is merely a 'nice to do'

Recent changes in planning frameworks and the imminent introduction of the Environment Bill mean biodiversity net gain is now a critical requirement in order to secure planning consent for new developments. Under the NPPF, developers are at risk of not securing planning consent if they do not integrate biodiversity improvements within their design.

## LEGISLATION - BIODIVERSITY NET GAIN

What is Biodiversity Net Gain? 'An approach to development that leaves biodiversity in a better state than before'. When applying biodiversity net gain principles, developers are encouraged to bring forward schemes that provide an overall increase in natural habitat and ecological features. The aim of Biodiversity Net Gain is to minimise losses of biodiversity and help to restore ecological networks.

Biodiversity is no longer a box ticking exercise. Instead, greater awareness, consumer demand and regulatory drivers are increasing the relevance and penetration of biodiversity measures, which should be designed into every project from the outset.

Biodiversity Net Gain is already part of the National Planning Policy Framework but the NPPF does not specify a number/percentage for the gain. The latest update to the forthcoming Environment Bill includes a requirement for all future schemes including the development of land to deliver a mandatory 10 % biodiversity net gain. This net gain will be required to be maintained for a period of at least 30 years.

### Do Eco-habitats help in achieving Biodiversity Net Gain?

Whilst specifiers and developers are seeking solutions to meet ever-stringent legislation, popular species of bats and birds continue to decline in the UK. Although wildlife boxes do not directly contribute to achieving biodiversity net gain through the DEFRA Biodiversity Metric, the Biodiversity Net Gain BS8683:2021 states 'Biodiversity measure that are outside the scope of a metric, should be described and where possible quantified. For example, installing swift nesting boxes within a housing development and installing bat boxes with associated bat friendly lighting.'



# Building users are not interested in nature

As reports already demonstrate, homeowners and commercial property tenants have a greater appreciation of wellbeing and a stronger connection with nature, partly due to the restrictions placed on them during the COVID-19 pandemic.

## BAT BOXES

The Wienerberger Habibat range of bat boxes are solid boxes made of insulating concrete that provide an internal roost space, ready to be integrated into the fabric of a building as it is built or renovated. Suitable for most species commonly found in the UK, the single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing freedom of movement.

There are various sizes to choose from

#### Habibat Premium Bat Box

- Dimensions 440mm wide x 440mm high x 102mm deep
- Concrete plus facing brick Material

With its stretcher bond facing detail, the Premium Bat Box can be discreetly integrated into your design. Faced with any brick (from Wienerberger and other manufacturers) of your choice to ensure an aesthetically pleasing finish.



#### Habibat Bat Box

- Dimensions 215mm wide x 440mm high x 102mm deep
- Material Concrete plus brick facing

The Wienerberger Habibat Bat Box has the same internal configuration as the Habibat Premium bat box, the only difference is that this version is finished with a stack bond facing brick detail.

### Also available in smaller formats



#### Habibat Three Course Bat Box

- Dimensions 215mm wide x 215mm high x 102mm deep
- Concrete plus facing brick Material



#### Habibat Four Course Bat Box

- Dimensions 215mm wide x 290mm high x 102mm deep
- Concrete plus facing brick Material

### Temporary bat boxes



(Note: 5mm steel post required.)

#### Habibat Rocket Box (only used by crevice dwelling bats)

- Material

#### **Retro-fitted bat boxes**



Many companies including Wienerberger Habibat are seeking to improve net biodiversity gain on existing buildings. Wienerberger Habibat are currently supplying a number of customers with retro-fit bat boxes. Our externally mounted bat box are a perfect external retrofit option.

- Dimensions 215mm wide x 450mm height x 102.5mm deep
- Material Concrete

#### Maternity bat boxes



To accommodate bats during the breeding season, we also produce the Wienerberger Habibat Maternity Bat Box which is more specific to their needs during this time. It features one larger access point and enhancements to the inner workings for ease of movement.

#### Habibat Maternity Bat Box

- Dimensions 215mm wide x 440mm high x 102mm deep
- Material Concrete plus facing brick

The Habibat Maternity Roost Box range, is a variation of our existing integrated Bat Box range, featuring significant alterations that aim to provide a stable environment for bats and their off spring. Aesthetically, these products appear no different than the current products, however they feature one access point (instead of two), and enhancements to the inner workings in order to provide comfortable roost space for the species, during the breeding season.

Should sites have to demolish existing buildings to make way for new development they may have to provide temporary bat roosts through construction. Wienerberger Habibat are able to supply temporary bat boxes.

Dimensions 300mm wide x 1200mm height 300mm deep. 19mm high quality plywood

Habibat Concrete External Mounted Box (only used by crevice dwelling bats)





Correct placement is fundamental to the successful uptake of use by the bats.



#### Orientation

Temperature is known to be the major factor influencing successful uptake of artificial roost by bats. In general, bats seek warm spaces to help them with rearing young. For this reason, Wienerberger Habibat boxes should be located where they will receive the maximum amount of sunlight. In the northern hemisphere this will be the southerly aspects/ orientation (south, southwest and south-east).



#### Height

The preferable position is 5 to 7 metres above ground. Avoid placement above windows, doors and wall climbing plants, thereby reducing the likelihood of predation by cats. A position near the eaves or gable apex of the property is preferable.



#### Landscape

To make Habibat a potential roost for a wider range of bat species, it is helpful to consider whether there is nearby vegetation features such as hedges and treelines. This is because some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.

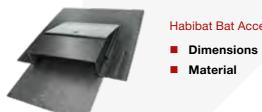
Bats and their roosts are legally protected from disturbance and damage. For this reason only a licenced bat worker should closely examine the Habitat to check for bat usage. However, anyone can check for signs of bat use. This includes the presence of bat droppings on the plinth and surrounding walls and the outflight of bats at dusk.

Monitoring

## BAT ACCESS TILES

Bat access tiles are specifically designed to provide the right kind of space to protect bats from the elements in their new habitat. This is done by offering a simple way to give bats access through small gaps whilst preventing rainwater ingress to your building. Modified access roof tiles are also available as a more aesthetically pleasing and subtle option.

We can advise on the amount of access and/or raised tiles to install, as too many openings will alter the temperature of the space, whilst too few may trap bats inside.



#### Habibat Bat Access Slate Tile

Dimensions 370mm wide x 500mm height x 60mm deep Slate and plastic



#### Habibat Bat Access Clay Tile

- Material Clay





Dimensions 230mm wide x 340mm height x 95mm deep



Wienerberger bird boxes are designed to seamlessly integrate into the façade of the building and fitted during the build stage of a new build project or fitted retrospectively to existing buildings. They can be an attractive feature for your building as well as providing the best possible artificial accommodation for a variety of different birds.

Constructed using insulating concrete block providing an internal roost space, they feature access holes of different sizes depending on the type of bird the bird box is for. The façade of the bird boxes can be clad in any Wienerberger brick from our extensive brick library of over 400 different brick types. We have a number of standard bird box designs and can also offer bespoke bird boxes to order.



Sparrows



- Material

- Material

## Habibat Terraced Sparrow Box



## Swifts



#### Habibat Premium Swift Box

- Dimensions 552mm wide x 140mm high x 200mm deep
- Material Concrete plus facing brick

With its stretcher bond facing detail, the Premium Swift Box can be discreetly integrated into your design. Faced with any brick (from Wienerberger and other manufacturers) of your choice to ensure an aesthetically pleasing finish.



### Habibat Swift Box

- Dimensions 328mm wide x 140mm high x 200mm deep
- Material Concrete plus facing brick



### Habibat Swift Brick

- Dimensions 215mm wide x 65mm high x 275mm deep
- Material Concrete plus facing brick







#### Habibat Premium Sparrow Nest Box

Dimensions 440mm wide x 215mm high x 150mm deep Concrete plus facing brick

#### Habibat Sparrow Nest Box

Dimensions 215mm wide x 215mm high x 150mm deep Concrete plus facing brick

Dimensions 665mm wide x 215mm high x 150mm deep Concrete plus facing brick



Starlings



#### Habibat Premium Starling Nest Box

- Dimensions 440mm wide x 215mm high x 150mm deep
- Material Concrete plus facing brick



#### Habibat starling nest box

- Dimensions 215mm wide x 215mm high x 150mm deep
- Concrete plus facing brick Material



### **Redstarts & Robins**



#### Habibat Premium Redstart Nest Boxes

- Dimensions 440mm wide x 215mm high x 150mm deep
- Concrete plus facing brick Material



## Habibat Redstart Nest Boxes

- Material

#### Tits & Wrens

#### Habibat Premium Tits Nest Box

- Concrete plus facing brick Material

#### Habibat Tits Nest Box

- Dimensions 215mm wide x 215mm high x 120mm deep
- Material



Dimensions 215mm wide x 215mm high x 150mm deep Concrete plus facing brick

Dimensions 440mm wide x 215mm high x 120mm deep

Concrete plus facing brick







## BUG BRICKS

Wienerberger/Habibat Bug Bricks are produced to UK brick size format and therefore can be easily installed in place of a standard brick. The range of hole sizes provides different species of bugs a much needed nesting space.



Hedgehogs numbers in the UK has been in decline for over two decades and in 2020 became classified as vulnerable to extinction. Building developments on natural habitats and changes to farming practices have seriously impacted the number of hedgehogs in the UK, along with pesticides killing the hedgehog's natural diet of slugs, insects and worms.



Installing a hedgehog house/box in the garden provides them with a safe place to shelter and hibernate through the winter. Whether this is to support biodiversity net gain on a new project or simply within your garden we can supply a quality, long-lasting hedgehog house.

Our hedgehog houses are made using 19mm exterior quality plywood, from an FSC sustainable source. This ensures our boxes are durable and weather proof. We designed the Hedgehog house in conjunction with the Ministry of Justice and this incorporates an interior baffle system to prevent predators from accessing the house. Our hedgehog boxes have a removable lid should you wish to clean out the box once hibernation has finished and we recommend using them along hedgehog highways such as gaps under fences.

The hedgehog box should be placed in a quiet, shady, sheltered, dry place with plenty of protection vegetation around. Avoid having the entrance point north, north easterly to prevent cold winds entering the house.

#### Habibat Hedgehog Box

- Dimensions 490mm wide x 245mm high x 370mm deep
- Material Plywood from FSC sustainable source

Bug and minibeast provide an important food source for other animals like birds and bats which are essential to pollinating our flowers and crops and are useful workers when it comes to decomposition and giving us nutrient rich soil.

Our bug bricks are perfect as they are full of dark nooks and crannies which insects love to explore especially lacewings and ladybirds. Cleaning of the bug bricks is recommended in late spring after the adults have emerged. This will increase the amount of years the brick will be used for and reduce the risk of parasites. A suggested tool to help clean the brick is something like a pipe cleaner or small paint brush used to loosen and pull out the remaining nesting material.

#### **BUG BRICKS**

Dimensions 215mm wide x 65mm high x 102.5 mm deep
Material Concrete plus facing brick





## SOLITARY BEE BRICKS



Wienerberger Habibat solitary bee bricks are produced to UK brick size format and therefore can be easily installed in place of a standard brick. The range of hole sizes provides different species of solitary bee much needed nesting space.

The cavities in our solitary bee bricks are 75mm deep which reduces the risk of predation and also ensure bees and their larvae are contained entirely within the specifically designed brick. Solitary bees lay their eggs in these cavities before sealing the entrance with mud and chewed-up vegetation. The offspring then emerge in spring and the cycle repeats.

Wienerberger/Habibat solitary bee bricks are produced using a specific insulating concrete block which is free from toxins and can be faced in any brick or stone to fit discreetly in with the brick or stone finish on the building. Alternatively contrasting colours can be used to highlight the bricks.

Our solitary bee bricks should be situated on a warm elevation typically south-facing wall. They should be located at least 1 metre above the ground, and no higher than 5 metres, with no vegetation obstructing the holes.

We highly recommend planting bee-friendly plants, such as Hellebore, Aubretia, Foxgloves, Lavender, Buddleia and Honeysuckle, nearby so that the bees using the bricks have a food local source.

Cleaning of the solitary bricks is recommended in late spring after the adults have emerged. This will increase the amount of years the brick will be used for and reduce the risk of parasites. A suggested tool to help clean the brick is something like a pipe cleaner or small paint brush used to loosen and pull out the remaining nesting material.

#### Habibat Solitary Bee Brick

- Dimensions 215mm wide x 65mm high x 102.5mm deep
- Concrete plus facing brick Material

## BUMBLE BEE BOXES

Wienerberger/Habibat Bumble Bee Boxes are produced to UK brick size format which eases installation. The hole size allows access to bumble bees and helps reduce the risk of predation. Over 97% of a bees natural habitat has been lost over the past 60 years so it is vital we help address this.



Our bumble bee boxes provide a weatherproof, dry, dark space for the colony to live in and ensures bees and their larvae are contained entirely within the specifically designed box.

Bumble bees prefer to nest in undisturbed areas and do not like prolonged exposure to the sun as this can heat up the nest too much so our bee boxes should be situated with this in mind and at least 1.5 metres above the ground.

Bee boxes should be installed in the same way as standard masonry, the entrance holes do not travel through the entire brick meaning there is no disruption to the cavity wall. No cleaning is required of these boxes as the bumble bees will clean the boxes out themselves. Wienerberger/Habibat bee boxes are produced using a specific insulating concrete block which is free from toxins and can be faced in any brick or stone to fit discreetly in with the brick or stone finish on the building. Alternatively contrasting colours can be used to highlight the bricks.

#### Habibat Bumble Bee Box

Dimensions 215w x 150h x 102.5mm deep Concrete plus facing brick Material



Why Eco-habitats are important

Wildlife is in a state of decline across the UK with **41%** of species declining in numbers since **1970**. The reasons for this stem from factors such as - change in agricultural practice (the use of herbicides and pesticides), the intensification of agriculture, the expansion of towns, villages, and cities, and the modernisation of building materials with new designs meaning species that have previously adapted alongside us in the built environment are quite often excluded from new buildings.

Wienerberger and Ecosurv have partnered together to combat this problem by producing a range of eco-habitat solutions for a wide range of species including birds (swifts, starlings, sparrows, robins, wrens and redstarts) bats, and bees. There are several questions that are often raised around the range of product solutions available, so in order to address some of those, the most common queries have been answered.



# How would eco-habitats help me achieve Biodiversity Net Gain?

Eco-habitats are expected to be included within the overall Net Gain Assessment to support planning applications. Whilst there is currently no quantitative value assigned to ecohabitats through the Defra Biodiversity Metric (which focuses on units of habitat loss and creation arising from development), wider biodiversity benefits must also be considered, including the provision of eco-habitats.

The new British Standard on Biodiversity Net Gain BS8683:2021 – Process for designing and implementing Biodiversity Net Gain – Specification, states the following:

"Biodiversity enhancement measures that supplement the projects Biodiversity Net Gain Targets and are outside the scope of a metric, should be described and where possible quantified. For example, installing swift nesting boxes within a housing development and installing bat boxes with associated bat friendly lighting".

## What are the maintenance requirements of the bird boxes?

The RSPB (Royal Society for the Protection of Birds) state that our bird boxes do not need to be cleaned out. If birds want to live there they will clean the boxes out themselves and/ or reorganise their living space, as they would do in a natural nest. We have seen this with tree sparrows in some of our boxes where they have cleaned out a previous environment and brought in their own nesting material.

# Do nesting birds present a risk to building fabric?

No, they do not. The bird boxes do not affect the rest of the building. The boxes are contained units and the only way wildlife can get in and out of them is from the outer skin of the wall (the single-entry point). This also applies to our solitary bee bricks which has a 75mm deep hole preventing access to the building's cavity. This helps reduce predation of the eggs and larvae.

# Do you have slate roof access for bats?

Yes we do, we offer bespoke boxes that match each client's requirements. We can offer different types of slates. We take a slate sample from site so it matches perfectly which we use to produce a matching slate box.

# How easy are the eco-habitat products to install?

The habitat boxes are very simple to install. They are manufactured to discreetly match the fabric of the





building and designed to UK brick dimensions (215 x 102.5 x 65mm), or block dimensions if they are going to be finished with render. We would recommend that the boxes are laid on a full bed of mortar and the surrounding joints are fully filled.

#### Are the habitats produced in the UK?

Yes, a vast majority are produced in our Waresley plant located in Worcestershire. We also produce some of the tile eco-habitats in one of our Yorkshire tile factories, and handmade, heritage products at our Keymer works based in Surrey.

# Do the brick or roof tiles selected need to be Wienerberger products?

No, we can produce habitats from any UK or continental manufacturer of brick or we also do them for natural and reconstituted stone and render.

# Do you offer any other products for wildlife other than birds and bats?

The majority of our orders are for eco-habitat solutions catering for bats and a wide variety of birds, however we do offer eco-habitats for bees (bumble and solitary bee), bugs and hedgehogs. We will continue to explore the possibilities of adding new wildlife habitat solutions to our range in the future.

If you're interested to learn more about the range of products we offer to support eco-habitats, visit www.wienerberger.co.uk Case study

## HELPING THE SECOND LARGEST SWIFT COLONY IN THE SOUTH FIND A SAFE HAVEN

The project

If you are looking for an example of the built environment providing a home for wildlife, then a former hospital site in Brighton would be a great place to start.

> This project first started when £2m refurbishment works took place at the site and nurse Heather Ball first spotted the swifts. "BBC Spring Watch inspired me to keep a look out for the swifts," said Swift Conservation Group (SCG) volunteer and member Heather. "If they hadn't mentioned them, I wouldn't have known. But after watching that programme, I heard the swifts' calls and realised they were nesting in the building."

It was later discovered that the colony, the second largest in the south of England, had resided at the site for some time, when local residents were able to confirm that the swifts have been active in the area for over half a century. The swifts were using old and decaying ventilator bricks and other gaps in walls as nesting holes, but any repairs made to the holes would have rendered them unusable for the swifts, so Heather realised action was required in order to provide them with a nesting site.

In order to help, Heather enlisted the assistance of her fellow volunteer, Chris Lowe, who runs the SCG, and the site's owners to see what solution could be found.



The solution came in the form of Wienerberger Habitat Swift Boxes which were chosen to be installed ahead of ventilator bricks during the refurbishment. The boxes were retrofitted into the building, matching the existing brickwork as well as also conforming to British brick standards, meaning the boxes could seamlessly fit into the design of the building.

Several years after the successful installation, Brighton & Hove City Council announced that all new developments over five metres tall in the city now have to include habitats within their construction to house swifts. The project is now used as a flagship example of swift provision.



## Testimonial

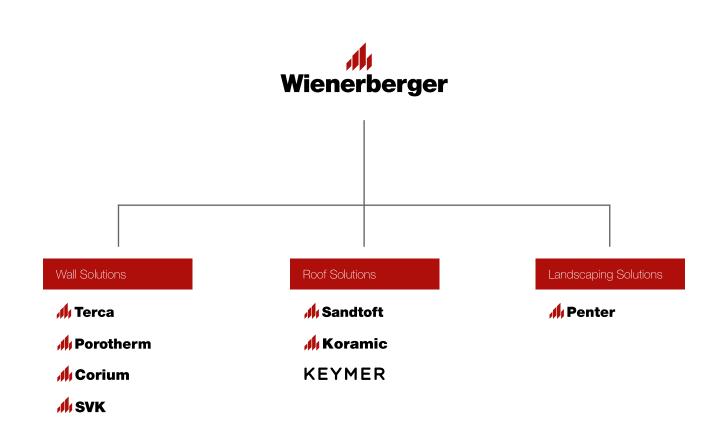
"We wish that other building projects would take account of the needs of nesting birds like this. Simple measures such as using swift-friendly airbricks and putting up integral nest boxes can make all the difference to swift numbers."

#### **Richard Black**

**RSPB** Conservation Projects Officer

## Credits

Project	Former Hospital Site
Site location	Brighton
Client	Sussex Community NHS Foundation Trust
Materials supplier	Wienerberger Habibat
Product type	Habibat Swift Box



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