TLX Insulation have used our knowledge and expertise to create TLX Bat Safe - the bat friendly, energy-saving breather membrane, approved by LABC.

Bats are a protected species in the UK and play an important role in the ecosystem. Until now when bats are found, only Bitumen 1F felt has been used. This has come at considerable cost to the thermal performance of the roof because 1F felt requires extra rafter space if insulation is used; in old buildings this is often not possible.

Properties with an uninsulated 1F felt roof can release up to **10 tonnes of CO₂ per year**. Replacing 1F felt with a breathable membrane and additional insulation between the rafters **can improve thermal performance by 87%** and **reduce CO₂ emissions by 57%**.

These factors have a large impact on global warming and climate change. TLX Bat Safe has been approved by LABC and is designed with a bat mesh protection system on both sides of the membrane. Unlike 1F felt, **TLX Bat Safe** is breathable, lightweight, high strength and easy to handle. It is suitable when evidence of bats are found, in low impact areas.
Applications
- Can be used in warm or cold roof constructions
- Suitable for unsupported and supported applications

Fixing instructions
- Install Batsafe in accordance with the following instructions and with the relevant standards, for example:
  - BS 5250:2011 Code of Practice for the control of condensation in Buildings
- Lay Batsafe according to the following tables—minimum overlap requirements:

<table>
<thead>
<tr>
<th>Roof Pitch</th>
<th>Horizontal Lap mm</th>
<th>Vertical Lap mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.5°-14°</td>
<td>225</td>
<td>150</td>
</tr>
<tr>
<td>15°-30°</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>34°+</td>
<td>100</td>
<td>75</td>
</tr>
</tbody>
</table>

Hips mm: 150
Valleys mm: 300
Standard ridges mm: 150 on either side of the apex

Roll: 0.95m x 25m - 23.75m² coverage - 8kg

- At hips Batsafe should be lapped over 600mm (min) wide strips of Batsafe covering hips
- At valleys a conventional breather membrane or protective sheet should be used underneath the valley lining itself with the Batsafe lapping over it under the first tile

Limitation advice
- Laid directly over insulation a vapour control layer may be required on the warm side of the insulation. Refer to BS5250:2011 British Standard Code of Practice for the Control of Condensation in Buildings
- Do not bring into contact with solvents or undried timber preservatives
- Avoid excessive use of nails and clamps
- Damaged areas should be covered with a second layer of Batsafe, sealing around the edges with a proprietary breather membrane tape with thick acrylic adhesive and applying pressure
- Counter-battening is recommended
- Batsafe may be used as a temporary waterproof covering for up to 2 weeks. However, like all polymer membranes, sunlight will cause gradual deterioration and it is good practice to cover with tiles or slates at the earliest opportunity. In periods of intense sunlight, protect the roof underlay with a temporary cover prior to tiling or slating