Helical Nails for Warm Roof Construction

Products for PITCHED & FLAT ROOFS

Staifix®

THORHELICAL®

From Ancon®
Warm Roof Construction

Pitched Roofs

Helical nails fix counterbattens to rafters, without compressing the layer of insulation in-between.

Flat Roofs

Headed helical nails fix plywood/insulation composite roof panels to joists.
Helical nails are a quick and reliable fixing for use in warm roof applications. Unlike traditional nails, they rotate as they are driven in, inducing a self-tapping action and consequently do not split or bounce timbers.

### Product Range

**Super-7™ Alignment Tool for Pitched Roofs**

GB Patent No. 2426949

**Super-7™ Thor-Helical Nail for Pitched Roofs**

Stocked Lengths:
- 140, 150, 160, 165, 175, 185mm

**Note:** Other lengths are available in increments of 5mm. Ancon recommends a minimum counter batten thickness of 38mm.

See pages 4-5 for more details.

**Super-8 Headed Helical Nail for Flat Roofs**

Standard Lengths:
- 145, 170, 195mm

**Note:** Other lengths are available on request (min. 135mm)

See pages 6-7 for more details.
Helical Nails for Pitched Roofs

Super-7™ Thor-Helical Nails
Super-7™ nails install flush to the counterbatten. They are manufactured from stainless steel and are engineered with the precise Thor-Helical patented helix, and so provide maximum corrosion resistance and excellent holding power. They are stocked in six standard lengths.

European Patent No. 1307303
Recommended Nail Length and Fixing Centres

This information should be calculated using HeliCalc, a free web-based program available at www.helicalc.co.uk. Users simply input details of their site location and roof construction, and HeliCalc calculates the length, density and quantity of Super-7™ nails required for the project. Alternatively, contact Ancon with your project details.

Note: HeliCalc results are specific to Super-7™ Thor-Helical nails. The data is calculated using a design method, formulated by Ancon Ltd and independently approved by the Building Research Establishment, which is applied to the results of a comprehensive and independent test programme carried out by Lucideon. Wind load calculations are to BS6399: Part 2: 1997. Snow load calculations are to BS6399: Part 3: 1988. Partial safety factors are from National Annexes to Eurocodes 0 and 5 and are applied in respect of timber connections, dead loads, wind loads and snow loads.

Test Results

Test data is available on request.

Super-7™ Alignment Tool

This innovative Alignment Tool vertically aligns and centres a nail on the counterbatten to rafter arrangement, improving build quality.

The tool features a levelling indicator to identify a vertical plane.

Nail Lengths

<table>
<thead>
<tr>
<th>Stocked Lengths (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>140, 150, 160, 165, 175, 185</td>
</tr>
</tbody>
</table>

Note: Other lengths are available in increments of 5mm. Ancon recommends a minimum counter batten thickness of 38mm.

Pack Sizes

<table>
<thead>
<tr>
<th>Nail Length</th>
<th>Quantity per Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>160mm and under</td>
<td>400</td>
</tr>
<tr>
<td>165mm and above</td>
<td>200</td>
</tr>
</tbody>
</table>

Note: Other lengths are available in increments of 5mm. Ancon recommends a minimum counter batten thickness of 38mm.

Super-7s can be hammered in or power-driven. SDS drill attachments are available.
Helical Nails for Flat Roofs

Super-8 Headed Helical Nails

Headed helical nails are designed to secure plywood/insulation composite roof decks to timber joists. They are manufactured from zinc coated steel in three standard lengths which suit panel depths from 85mm to 160mm. Other lengths and stainless steel versions are available on request.

Super-8s should be installed at a rate of 6.9 per square metre, using a hammer. The 18mm diameter head simplifies installation.
Nail Lengths and Pack Sizes

<table>
<thead>
<tr>
<th>Standard Lengths (mm)</th>
<th>Quantity per Bag</th>
<th>Quantity per Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>170</td>
<td>20</td>
<td>400</td>
</tr>
<tr>
<td>195</td>
<td>20</td>
<td>400</td>
</tr>
</tbody>
</table>

Note: Other lengths are available on request (min. 135mm)

Recommended Lengths

<table>
<thead>
<tr>
<th>Composite Panel Depth</th>
<th>Recommended Nail Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-110mm</td>
<td>145mm</td>
</tr>
<tr>
<td>115-135mm</td>
<td>170mm</td>
</tr>
<tr>
<td>140-160mm</td>
<td>195mm</td>
</tr>
</tbody>
</table>

Super-8 nails should achieve a minimum embedment of 35mm in the joist.

Recommended Axial Spacings

<table>
<thead>
<tr>
<th>Joist Centres</th>
<th>400mm</th>
<th>600mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axial Spacings</td>
<td>400mm x 600mm</td>
<td>600mm x 400mm</td>
</tr>
</tbody>
</table>

Test Results

Test data is available on request.
Ancon will advise on the correct selection of fixing to suit any project and provide details of your nearest stockist.

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Visit: [www.ancon.co.uk](http://www.ancon.co.uk)

The construction applications and details provided in this literature are indicative only. In every case, project working details should be entrusted to appropriately qualified and experienced persons.

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