Assembly instructions

**Before you start**
Check the underlay that it is in level. At rectangular underlays the diagonals and opposite sides should have the same measures. Smaller deviations can be adjusted with flashings. The edges that starts off the assembly must be in line. Study how to solve the roof details and other “obstacles” before the assembly.

- Use work gloves to avoid cuts.
- Fasten the sheet directly. The wind can easily blow them away.
- Be aware of the risk of slipping during winter and by rain.
- Do not stay under the assembly. Loose sheets and tools can fall down.
- Piles of steel sheets are heavy and generates large points of loads. Place them close to load bearing beams.
- Spread the load on as many profile tops as possible, preferably with wood studs.
- Do the cutting of the sheets on the ground.

**Storage**
The sheeting must be stored on a plane surface, in a dry and well ventilated place, preferably indoors. If it is stored outdoors, protect it with a waterproof cover. Water that leaks through the cover may cause white spots on the coating. Make sure that the sheeting has sufficient support and a slight incline length ways in case water seeps through the cover.

Protect the sheeting with a waterproof cover at the building site.

**Carrying**
Carry the sheets edgewise. Be careful if you must carry the sheets horizontally. If the sheets are bent lengthwise, the profiles may be deformed. Drawing the sheeting may cause scratches on the surface.

**How to lift**
By loading, unloading and movement of the profiles, always use a lifting yoke with a spreader and 100 mm wide terylene straps.

Keep in a dry place
Assembly instructions

Cutting
Cut the sheeting with a jigsaw or a circular saw with a special blade (speedy cut max 2400 rpm) or a nibbler on a firm underlay on the ground. Never use an angle grinder. It will heat up the plate and ruin the galvanization and the hot metal chips produced may scorch the coating.

Maintenance
The hard and smooth surface of Lindab’s Tile Effect Roofing makes it difficult for moss and algae to grow on the cladding or roofing. If you want to keep the sheeting in mint condition, wash it a couple of times a year with water and a mild detergent. Don’t use a high-pressure washing appliance.

Tools

- Spirit level
- Folding rule
- Pencil
- Seam plier
- Steel scissors
- Hack saw
- Circular saw (speedy cut, max 2400 rpm)
- Nibbler
- Electric screwdriver

Never use an angle grinder.

After-treatment of cut edges
Cut edges should be painted with Lindab’s repair paint to prolong the lifespan of the cladding or roofing. Use a sponge or Lindab’s paint nib.

Cleaning after assembly
Metal chips or filings on the sheeting or in gutters must be removed soon after the assembly is ready. They may rust and cause discoloration.
Assembly instructions

Fastening
What kind of fastener you need depends on which type of profile you have chosen and the underlay. Please refer to the table below for type of fasteners.

<table>
<thead>
<tr>
<th>Designation</th>
<th>Dimen-</th>
<th>Drilling</th>
<th>Corrosivity</th>
<th>Stainless</th>
<th>Area of application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sion</td>
<td>capacity</td>
<td>class</td>
<td>steel</td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>4.8 x 35</td>
<td>3 x 0.5</td>
<td>C1-C2</td>
<td></td>
<td>All-round screw for securing metal-plate to wood. (Sharp tip)</td>
</tr>
<tr>
<td>A13</td>
<td>4.8 x 35</td>
<td>4 x 0.5</td>
<td>C1-C2</td>
<td></td>
<td>All-round screw for securing metal-plate to wood. (Drill bit)</td>
</tr>
<tr>
<td>B21</td>
<td>4.8 x 20</td>
<td>1.2 - 2 x 2.0</td>
<td>C1-C2</td>
<td></td>
<td>All-round screw, metal-plate to lightweight steel constructions etc.</td>
</tr>
<tr>
<td>B63</td>
<td>4.8 x 25</td>
<td>1.2 - 2 x 2.0</td>
<td>C4</td>
<td>•</td>
<td>External all-round screw for metal-plate in lightweight steel construction/profile.</td>
</tr>
<tr>
<td>B82</td>
<td>6.3 x 25</td>
<td>1.5 - 2 x 3.0</td>
<td>C4</td>
<td>•</td>
<td>External screw for metal-plate in lightweight steel construction where higher strength is required.</td>
</tr>
<tr>
<td>D14</td>
<td>4.8 x 19</td>
<td>4 x 0.5</td>
<td>C1-C2</td>
<td></td>
<td>All-round screw for overlap fastening of thin metal-plate.</td>
</tr>
<tr>
<td>P31</td>
<td>3.5 x 40</td>
<td></td>
<td>C3</td>
<td></td>
<td>Clamp nail for fastening profiled metal-plate and fittings to wood.</td>
</tr>
<tr>
<td>P32</td>
<td>3.5 x 40</td>
<td></td>
<td>C4 Copper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P33</td>
<td>3.5 x 40</td>
<td></td>
<td>C4 Stainless steel</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Designation, blind rivet</th>
<th>Dimen-</th>
<th>Max grip</th>
<th>Colour-RAL</th>
<th>Main diameter</th>
<th>Area of application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RB12</td>
<td>4.0 x 10</td>
<td>6.5</td>
<td></td>
<td>8</td>
<td>Overlapping</td>
</tr>
</tbody>
</table>
Components
There are a wide variety of cladding and roofing profiles. In the table below you can find the most common profiles and find out the covering width and the batten distance to be used.

There are also a wide range of flashings to go with your wall or roof. The table below gives you the different kinds.

### Tile Effect profile

<table>
<thead>
<tr>
<th>Profile</th>
<th>Measures</th>
<th>Batten distance</th>
<th>Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPA</td>
<td><img src="image1" alt="" /></td>
<td>400 mm</td>
<td>![overlap1]</td>
</tr>
<tr>
<td>LPE</td>
<td><img src="image2" alt="" /></td>
<td>350 mm</td>
<td>![overlap2]</td>
</tr>
<tr>
<td>LPA L</td>
<td><img src="image3" alt="" /></td>
<td>350 mm</td>
<td>![overlap3]</td>
</tr>
<tr>
<td>LPA107</td>
<td><img src="image4" alt="" /></td>
<td>1070 mm</td>
<td>![overlap4]</td>
</tr>
</tbody>
</table>

Assembly instructions
## Assembly instructions

### Flashings

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOTP</td>
<td>Eaves board</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>FOTPA</td>
<td>Eaves board</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>RD</td>
<td>Valley gutter</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>NP120/NP170</td>
<td>Ridge capping</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>VISK120</td>
<td>Barge board flashing</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>VISK55</td>
<td>Barge board flashing</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>VISK110</td>
<td></td>
<td><img src="image7.png" alt="Image" /></td>
</tr>
</tbody>
</table>
## Assembly instructions

### Flashings

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NTP</strong></td>
<td>Ridge capping</td>
<td><img src="image1.png" alt="Diagram" /></td>
</tr>
<tr>
<td></td>
<td><em>Cover lengths: 1200 mm and 2000 mm.</em></td>
<td></td>
</tr>
<tr>
<td><strong>CTG</strong></td>
<td>End piece for ridge capping</td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>TGLPA</strong></td>
<td>Roof transition</td>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>LPTPÖ</strong></td>
<td>Seal profile, top</td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>LPTPU</strong></td>
<td>Seal profile, bottom</td>
<td><img src="image5.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>FHU</strong></td>
<td>Discharge hood</td>
<td><img src="image6.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>
Assembly – Tile Effect Roofing

**Underlay**
The Lindab Tile Effect Roof is mounted on steel or wood battens. The space between the studs/battens depends on the type of tile effect profile. The dimensions on the battens depend on the climate and terrain. For special climate and terrain, please contact Lindab for dimensioning.

In the following assembly instruction a Lindab batten KLS has been used. The assembly order is the same with studs or wood underlay. The roof pitch must be at least 14°.

If wood underlay is used do not use pressure-creosoted. It may cause corrosion.

**Assembly**
Always start with the first sheet at the gable and at the lowest corner of the roof. The sheets are mounted from bottom to top. Check that the first sheet also is at the right angle to the roof line at the base. In the following assembly instruction the underlay is a felt roof with an eaves board at the base. There are other solutions of this building detail but the roofing principle is the same. If you have inquiries of this please contact Lindab local representative. Never step on the sheets until they are completely assembled – use roof ladder.

**Fastening**
Along the roof base and along the gable put one screw in every “tile”. Each sheet is fastened ready before next sheet but fastening of the overlap can wait until last.

*End overlap:* Use a self tapping screw in every “tile”

*Other fastenings:* Use self tapping screws in every second “tile” and every second “tile-row” Displace the fastening one “tile” for every “tile-row”.

*Side overlap:* Use self tapping screws in every “tile” along the side overlap.

*Weather boards and ridge cappings:* Use self tapping screws or blind rivets with c/c max 400 mm
Assembly – Tile Effect Roofing

**New roof or on top of old roof**

A new roof with Tile Effect Roofing. Underlay is Lindab Batten KLS on felted roof.

Due to the low weight of the tile effect profiles, it can be laid on an old roof.

**Eaves board and underlay**

Mount the eaves board. Zig-Zag the screw row.

Place the underlay protection on the roof.

**Battens**

Measure the batten distances. The distance is depending on the chosen profile.

Fasten the battens KLS on the roof.

Batten distance from roof base to first batten is 1 “tile length” – 45 mm. Use Lindab batten KLH which is designed for this solution.

Alternative roof base construction. Use Lindab batten KLS at base.
Assembly – Tile Effect Roofing

Cladding

Order of assembly.

Make sure to mount the first sheet in straight angle to the roof base.

Continue with the next sheet and end overlap min 125 mm.

Put the screws according to picture to make sure of tight side overlap. If necessary, put a blind rivet also on the profile top.

Valley Gutter

Measure two distances for the right angle at the valley gutter.

Use a nibbler to cut the sheet.
Measure the cut out distances. Make the cut out with a nibbler. Place the cut out sheets around the chimney.

Use Wakaflex or similar around the chimney and on top of the “tiles”.

Cover the Wakaflex above the chimney with the roof profile. Seal the chimney with flashings around the chimney.

Plane drawing of the chimney sealing.

Use Lindab Weatherboard VISK to cover the roof sides.

Use Lindab NTP ridge capping with a sealing strip. Don’t forget the end piece CTG.

Assembly – Tile Effect Roofing
Lindab Profile is a business area within the Lindab Group that develops, manufactures, and markets efficient, economical and aesthetic steel and sheet-metal solutions for the building industry.

We offer everything from complete building systems to individual building components for all types of housing, as well as commercial and industrial buildings.

Lindab Profile is represented in over 25 countries throughout Europe. Our head office is in Förslöv, in the south of Sweden.