# Kerabit
Tuotteet

Installation instructions for joint-sealed roofing, Kerabit Titan

Before installation, note the following:

The Kerabit Titan joint-sealed roofing is suitable for roofs with a pitch of 1:2–1:20. At a pitch of 1:15–1:20, an underlay membrane (TL 3, e.g. Kerabit 2400 UB) must be installed under the roofing before installation of the flashings. See installation instructions: Installing Kerabit underlay membranes on steep roofs.

The membrane rolls must be stored upright, protected from rain and sunlight. Before installation, the rolls must be kept at a temperature above +15 °C for at least for 24 hours. The membrane rolls must be opened to straighten in advance so as to prevent folds in the product. The time required for the film to straighten depends on the temperature (approx. 1–4 hours). When the roofing is being installed, the temperature must be higher than +10 °C and the weather must be dry. Bitumen roofing must not be installed in rain.
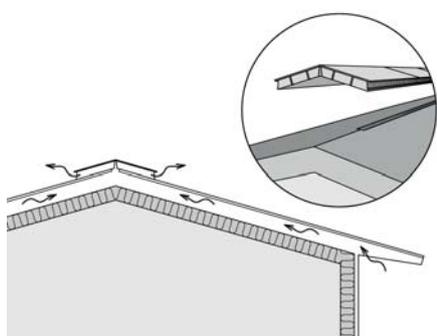
Before starting the installation of the roofing, ensure that the substructure is properly and sufficiently ventilated. If the roof pitch is 1:2–1:5, the roof ventilation can be supported with Kerabit ridge vents. The ridge vents must be installed across the entire length of the ridge. See separate installation instructions for the Kerabit ridge vent.

The material can be laid onto a substrate of rough tongued and grooved boards or moisture proof tongued and grooved construction panels. The substrate must be even and dry and must not bend.

The tools needed for the installation task are a hammer, tape measure, carpet knife with a hook blade, toothed trowel and application gun. Plate shears are required for cutting sheet metal. For gluing, use Kerabit Sealing Adhesive.

Nail the sheet using hot-galvanised, broad-headed clout nails. Note that the nails must penetrate the wooden substrate. If a pneumatic nail gun is used, the force must be adjusted low enough to ensure that the nail heads do not penetrate the roofing and are straight. Large head and flat head screws can also be used instead of nails, if the points of the nails must not be visible under the wooden substrate.

Before installation, attach triangle battens that are suitable for outdoor use at the base of chimneys and upturns and, if needed, also on the verge. Bitumen roofing is installed from the eaves upwards in order to avoid backwater laps. Note that you should install the roofing above chimneys and large penetrations only after the penetrations are completed (see section Chimney and large penetrations). A roofing installed in accordance with the installation instructions has no visible nails.

Ensure proper adhesion of all the seams/overlaps by walking on them, for example. If necessary, you can accelerate the adhesion by heating the glue surfaces of the membranes carefully with a hot air gun (Note: hot work).

Renovation sites

If the old bitumen roofing is not removed, it must be checked that the roof ventilation is working, the substructures are in order, and the substrate is flat. In such a case, the new roofing can, if needed, be installed over the old roofing. Any folds/bulges must be split and both glued and nailed to the surface before the new roofing is laid. The new roofing must be installed in the same direction as the old one, ensuring that the longitudinal seams do not overlap. The nail must penetrate the wooden substrate. Large head and flat head screws that are suitable for outdoor use can also be used instead of nails.

Selecting the installation direction

Joint-sealed roofing can be installed either vertically or horizontally. The direction affects ease of installation, appearance and possibly consumption of roofing material (roof dimensions in proportion to roll length). Vertical installation is recommended for steep roofs since in horizontal installation it is more difficult to ensure the straightness of the membranes if the roof pitch is higher than 1:4.

![Kerabit Tuotteet logo]
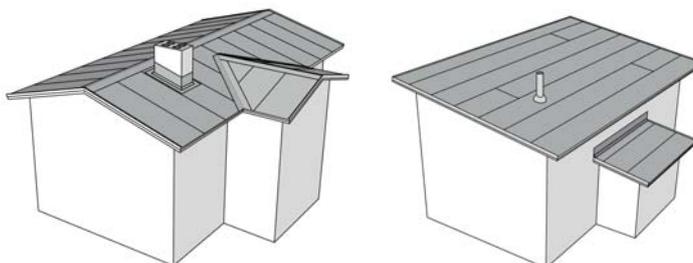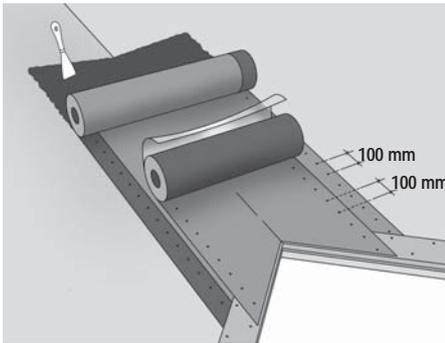
Valleys i.e. mitre-cuts

A polyester-framed underlay membrane Kerabit 2400 UB must be installed at the bottom of the valley. It must be fully glued to the substrate with sealing adhesive (adhesive layer about 1 mm) and nailed through the edges at intervals of 100 mm. Install an eave flashing on the lower eave. Install a Kerabit Valley Membrane of the same colour as the roofing on top of the underlay membrane with adhesive on the bottom and nail it through the edges at 100 mm intervals.

Eave flashings

Install Kerabit eave flashings on the lower eaves. Remove the protective plastic film from the flashings before installation. Leave a gap of approximately 10 mm between the facing surface and facing board of the flashing. Affix the flashings with clout nails or flat head screws that are suitable for outdoor use in a zigzag pattern at intervals of 100 mm. The lowermost row of fasteners must be at a distance of approximately 50–70 mm from the fold of the flashing. Overlap the flashing extensions by at least 50 mm. Open the drip of the topmost flashing and place the drip of the lower flashing inside the opened one. Fasten the extension with two nails/screws.
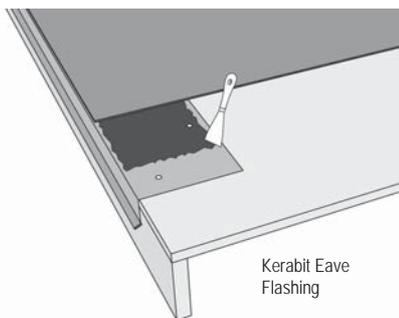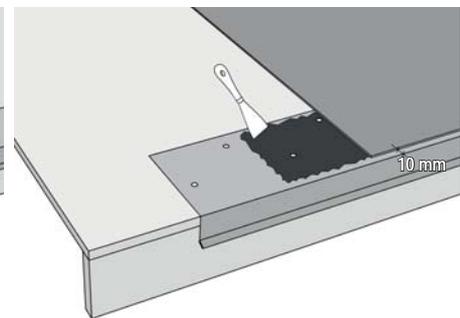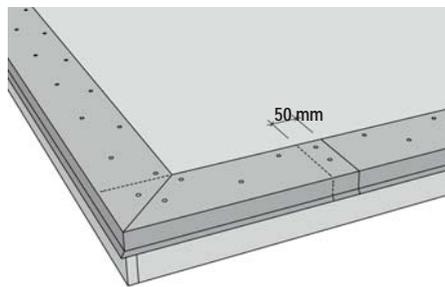
Kerabit Eave Flashing
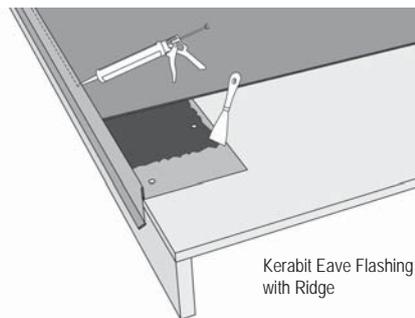
Kerabit Eave Flashing with Ridge
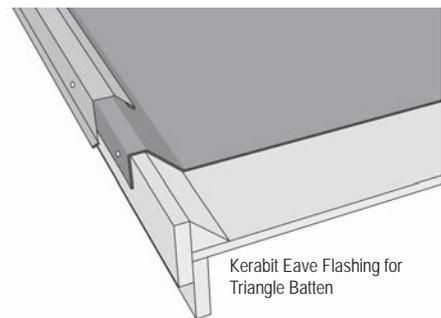
Kerabit Eave Flashing for Triangle Batten

There are three options for **verges**: Kerabit Eave Flashing, Eave Flashing with Ridge and Verge Flashing. The two first options must be installed before installing the roofing, as is the case with the bottom eave flashings. Begin the installation of the verge flashings at the lower eaves and work towards the ridge. This prevents the formation of backwater laps.

Note! When using verge flashings with a ridge, apply the sealing adhesive last into the seam of the membrane and flashing. When using Kerabit verge flashing, first attach the 50 x 50 mm triangle batten strips and the facing boards to their sides. Fold the membrane over the facing board and fix it to the board. Finish by attaching the verge flashings facing to facing board. The fixing interval is approx. 100 mm. See top-right figure.

For the sheet metal plating of top eaves, use Kerabit Verge Flashing with Ridge or Verge Flashing. When using the verge flashing with ridge, apply glue to the entire top edge of the membrane to glue it to the flashing. Finalise the seam between the membrane and flashing by applying sealing adhesive.

See more information in the installation instructions of Kerabit eave flashings.
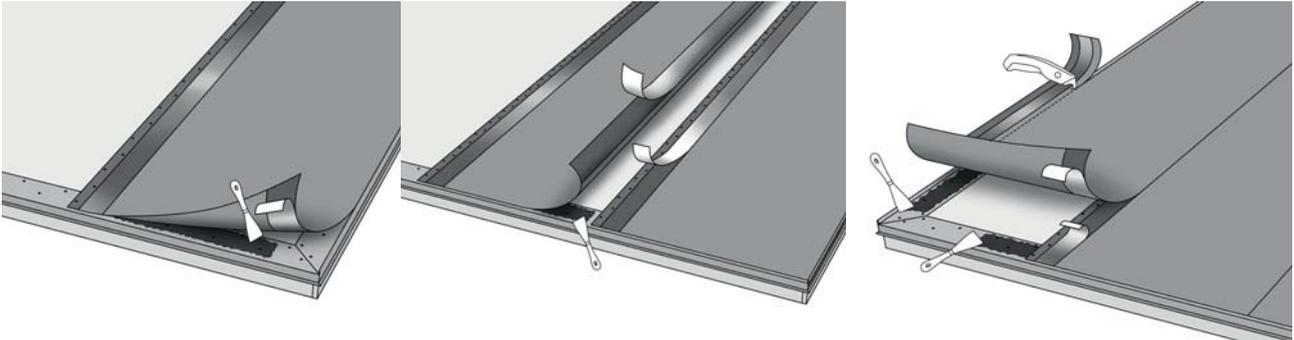
Vertical installation (roof pitch 1:2–1:20)

Align the Kerabit Titan membrane with the verge, with the bottom edge about 10 mm above the sheet metal fold. Nail the top edge at 100 mm intervals (begin about 200 mm from the edge with a strip of glue on the underside).

At the verges, carefully glue the ends of the membrane to the sheet metal with sealing adhesive.

Nail the membrane to the substrate at the position of the nail markers at the membrane edge. Remove the plastic film protecting the glue strip on the underside of the membrane, and press the membrane firmly against the verge flashing to affix it.

Align the membrane onto the previous sheet with the glue strips overlapping, but do not remove the protective films. Nail the upper edge as described above. Nail the membrane to the substrate at the positions of the nail markers. Remove the protective plastic films of the connecting glue strips and press the edges the together. Finalise the attachment of the top edge by nailing the membrane through the seam.
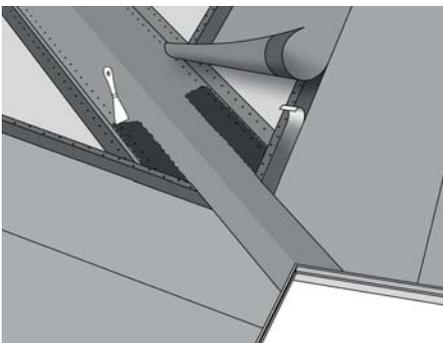
Continue the installation in the same way until the face is complete. Glue the membrane to the sheet metal of the verge flashing opposite the face with sealing adhesive.

If the roof features a valley, install the Kerabit Titan membrane 200 mm on top of the valley membrane. Cut the membrane ends with a board in the direction of the valley, and carefully attach the membranes across the entire length of the overlap with sealing adhesive. Do not nail!
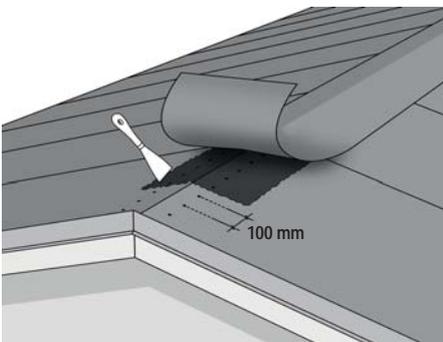
Ridge

Cut the surface-side glue edge off and split the membrane into two strips (approx. 400 mm in width). Glue the strip on the ridge with a full coat of sealing adhesive. Do not nail the ridge strip. Overlap the extensions by at least 150 mm, nail the end of the lower membrane to the substrate at intervals of 100 mm and glue the top membrane to the lower membrane across the width of the overlap.

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Horizontal installation (roof pitch 1:4–1:20)
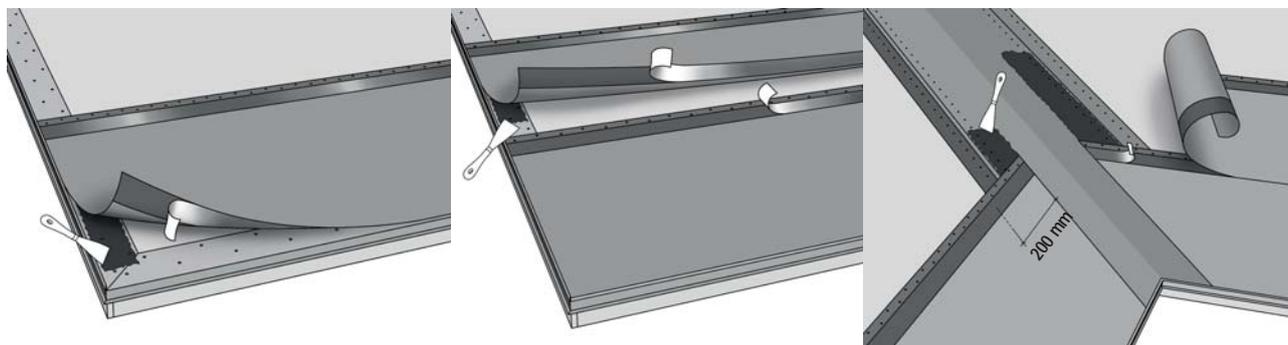
Align the membrane with the bottom eave in such a way that the lower edge
is 10 mm above the fold of the flashing and the glue strip in the underside is against the flashing. Nail the top edge at the positions of the nail markers. Lift the bottom of the membrane, remove the protective plastic film and press the membrane carefully against the flashing to affix it. At the verge flashings, glue the ends of the membranes to the metal.

If the roof features a valley, overlap the Kerabit Titan membranes on the valley membrane by 200 mm. Cut the membrane ends with a board in the direction of the valley, and carefully attach the membranes across the entire area of the overlap with sealing adhesive. Do not nail!

Align the next membrane onto the previous one with the glue strips overlapping, but do not remove the protective films. Nail the top edge at the positions of the nail markers. Fold the bottom edge of the membrane off the first membrane. Remove the protective plastic films of the connecting glue strips and press the edges the together.

Continue the installation in the same way until the face is complete.

Ridge
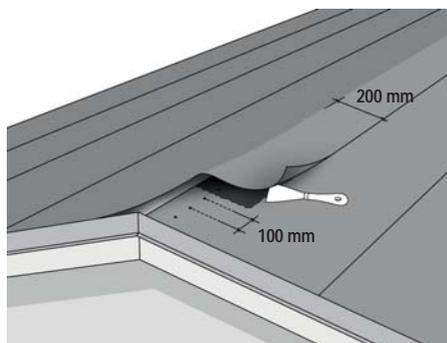
Alternative a) Cut the last membrane of the first face flush with the ridge, and nail at intervals of 100 mm. Fold the last membrane of the second face 200 mm over the ridge and glue with sealing adhesive to the membrane on the other face. Do not nail!

Alternative b) Cut the last membranes of both faces flush with the ridge, and nail at intervals of 100 mm. Cut the surface-side glue edge off and split the membrane into two strips (approx. 400 mm in width). Glue the strip on the ridge with a full coat of sealing adhesive. Do not nail the ridge strip. Overlap the extensions by 150 mm, nail the end of the lower membrane to the substrate at intervals of 100 mm and glue the top membrane to the lower membrane across the width of the overlap.

Details
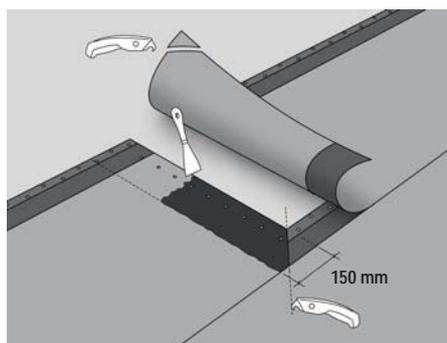
Extensions

Overlap the membranes by 150 mm. Cut off piece from the corners of the membrane as illustrated in the attached figure. Nail the end of the lower membrane to the substrate at 100 mm intervals. Glue the topmost membrane to the lower one across the entire width of the overlap. You can achieve a finished look for the seam by using masking tape.
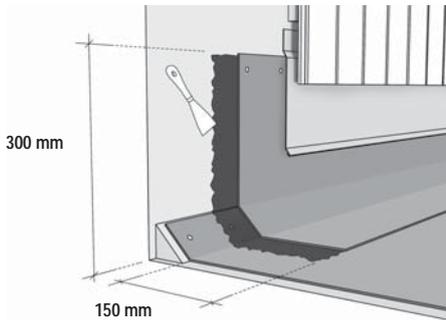
Upturns

Cut the membrane strips needed for an upturn (Kerabit Valley or Kerabit Titan), which extend by at least 300 mm onto the vertical surface and by at least 150 mm onto the roofing. Glue the strips fully with sealing adhesive and ensure the mechanical fixing of the top edge. At the extensions, overlap the membranes by 150 mm and nail the end of the lower membrane to the substrate at approx. 100 mm intervals. Protect the upturn with sheet metal plating so that water cannot get between the membrane and the vertical surface.
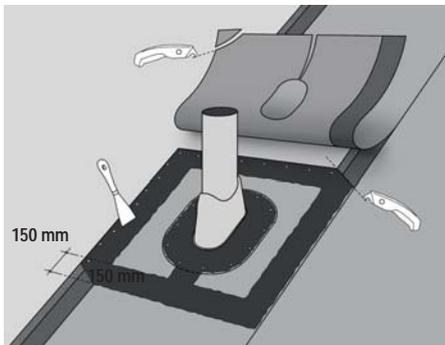
Round lead-throughs

Seal round lead-throughs with suitable lead-through seals (e.g. Vilpe felt lead-through, high). Dimension the membranes in such a way that there is an extension at the position of the lead-through. Install the membranes on top of each other across a distance equal to the flange diameter + at least 300 mm. Install the membrane that will remain under the flange first. Dimension the starting point: put the lead-through seal in place for a moment and mark a distance of 150 mm away from the flange edge. Make a hole in the membrane large enough for the lead-through and use sealing adhesive to glue the membrane to the substrate around the hole. Glue the lead-through flange fully to the membrane below and nail the edges of the flange to the substrate. Cut a large enough hole in the membrane that goes on the lead-through, and place the membrane on the flange. Glue the membrane to the flange and the membrane below with sealing adhesive. Finalise the base of the lead-through with sealing adhesive.
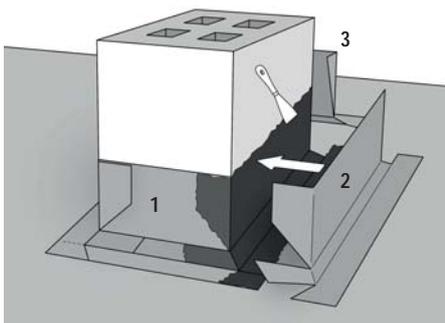
Chimney and other large lead-throughs

Install Kerabit Titan onto the upper edge of the triangle batten below and to the sides of the lead-through. Do not install the membrane on the lead-through until you have finished the chimney upturns.

Cut the upturn pieces shown in the figure from Kerabit Valley or Kerabit Titan membrane. Glue the pieces fully to the chimney and substrate in the numbered order shown in the figure.

Below the chimney and to the sides, the pieces overlap the roofing. Above the chimney, the pieces go under the roofing. Glue the roofing above the chimney carefully to the upturn piece. Mechanically affix the top edges of the upturn pieces at approx. 100 mm intervals.

Note! Chimneys of log buildings: Make a plywood collar at least 400 mm in height around the chimney (leave a gap to the chimney), and attach it to the roof structure using a triangle batten strip. Continue as above.
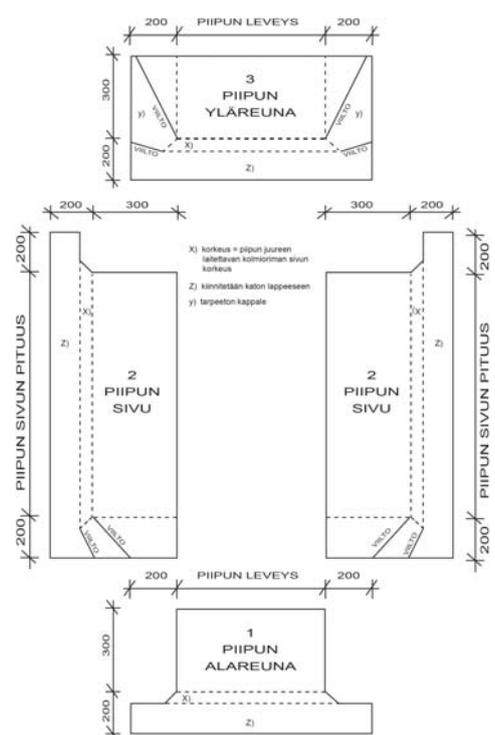
Finishing tasks

Protect the chimneys and other upturns after the installation of the shingle roofing with sheet metal cladding, for example, so that water cannot get

between the membrane and the vertical surface. If any fixings must be installed on the roof afterwards, ensure their waterproofing.

Roof maintenance instructions

Check the condition of the roof twice every year and clean it, if needed. To remove moss and lichen, Kerabit Bio Plus moss remover, for example, may be used. Fix any damage immediately. If you remove snow from the roof, reduce it layer by layer, and leave a snow layer of approximately 10 cm thick.

31 January 2024