

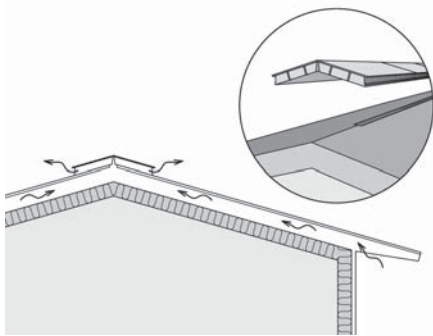
Installation instructions for the joint-sealed roofing Kerabit 10+

Before installation, note the following

The joint-sealed roofing Kerabit 10+ is suitable for roofs with a slope of 1:2 – 1:10. Membrane rolls are to be stored in an upright position, protected from rain and sun. Before installation, keep the rolls for a period of at least 24 hours at a temperature in excess of +15 °C. Open the rolls advance in order to allow them to straighten out. This way, folds can be prevented from developing in the finished surface. The time required by the straightening of the membrane depends on the temperature (from one to four hours). When the roofing is being installed, the temperature must be higher than +10 °C and the weather must be dry (the roofing must not be installed in rain).

The material can be laid onto a substrate of rough tongued and grooved boards or moisture proof tongued and grooved construction panels (e.g. Kerabit OSB roofing board). The substrate must be even, dry and must not bend.

The Kerabit 10+ membrane can be worked with a hooked carpet knife. For gluing, use Kerabit Sealing Adhesive. Nail the sheet using hot-galvanised clout nails. Nails must penetrate the wooden substrate.



Before starting the installation of the roofing, ensure that the substructure is properly and sufficiently ventilated. If the slope of the roof is between 1:2 and 1:5, the ventilation of the roof can be intensified using Kerabit Ridge Vent. Ridge vents must be installed to extend the entire length of the roof ridge. See a separate installation instruction for Kerabit Ridge Vent. Before installing the roofing, attach triangular battens at the base of chimneys and upturns.

Bitumen roofing is installed from the eaves upwards in order to avoid back-water laps. Note that you should install the roofing above chimneys and major penetrations only after the penetrations are completed (see section Chimney and major penetrations). A roofing installed in accordance with the installation instructions has no visible nails. Ensure the firm fastening of seams / overlaps, for example, by walking on them. If necessary, you can

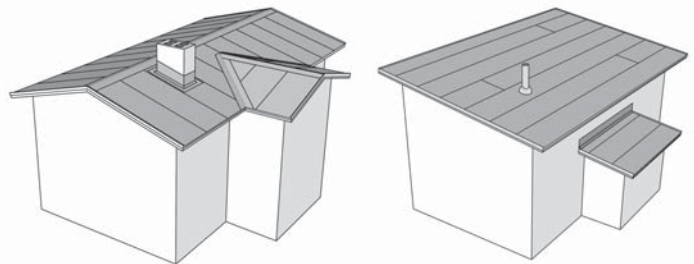
facilitate the adherence of the membrane by heating its adhesive surface using a hot air blower.

Renovation projects

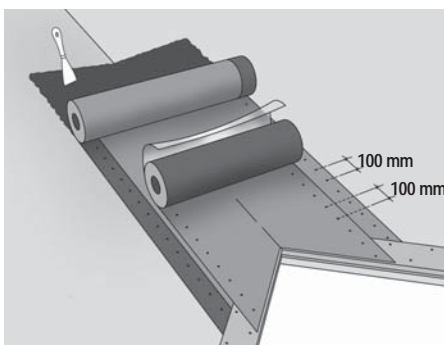
In renovation projects, joint-sealed roofing, as a general rule, can be laid on existing even bitumen roofing if ventilation is taken care of and the substrates are healthy. New roofing must be laid parallel to the existing roofing in such a way that the longitudinal seams of the two layers of roofing do not overlap. Any folds/bulges must be split and attached to the surface using adhesive and nailing before the new roofing is laid.

Selecting the orientation of installation

A joint-sealed roofing may be installed either vertically or horizontally. The orientation of installation affects how smoothly the installation will proceed, the appearance of the roofing and, possibly, the amount of roofing material required (the dimensions of the roof in relation to the length of the roll). On a steep roof, vertical installation is recommended, as in horizontal installation, it is difficult to ensure that the roofing sheets can be installed perfectly straight, if the inclination of the roof exceeds 1:4.

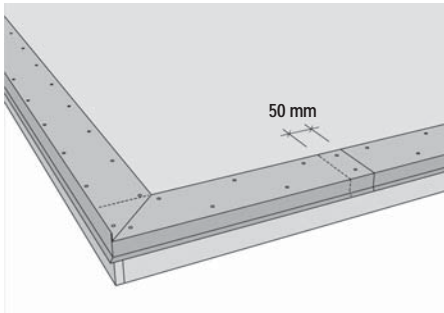


Valleys or mitre-cuts

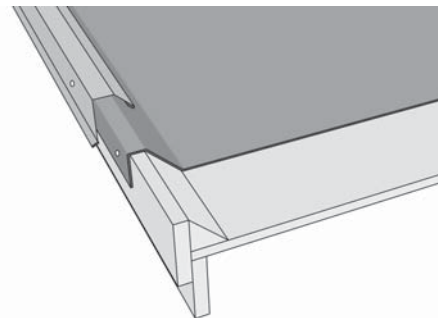
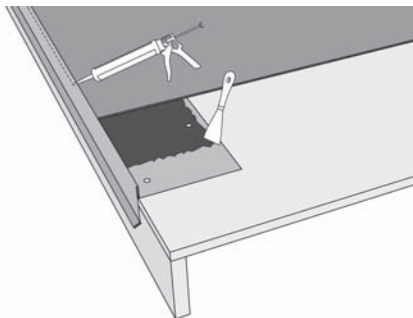
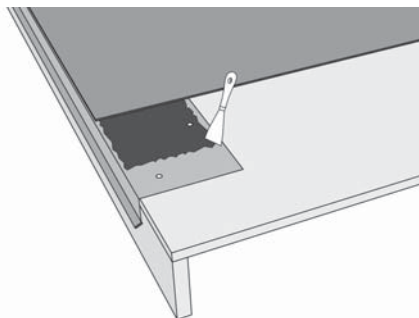
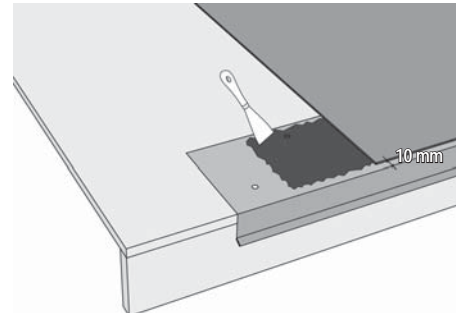


At the bottom of valleys, an underlayer consisting of a membrane with a polyester carrier – Kerabit 2500 UB – is installed by gluing it to the surface across the entire area (a layer of glue approx. 1 mm thick) using sealing adhesive and by nailing it to the surface at the edges with 100mm spacing. On the eaves, an eaves flashing is installed. On top of the underlay membrane, attach a Kerabit valley membrane the same colour as the roofing with adhesive on the bottom, and nail it at the edges at 100mm intervals.

Sheet metal cladding of eaves



On the eaves, Kerabit Eave Flashing is installed. The flashing joints must overlap at least 50mm and be secured with clout nails or sheet metal screws with a KFR head in a zigzag pattern with 100mm spacing. In joints, the drip edge of the uppermost flashing is opened up in order to house the drip edge of the lower flashing.



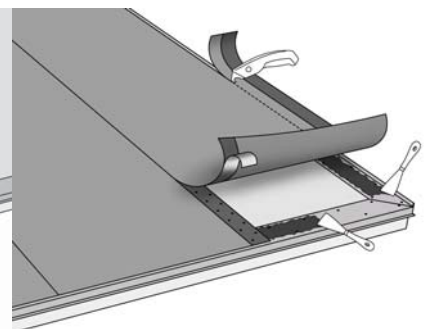
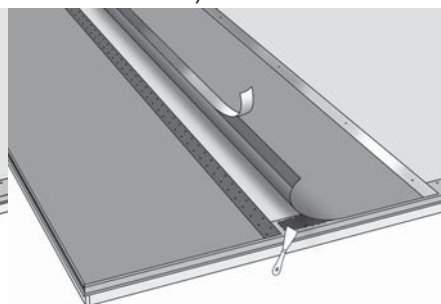
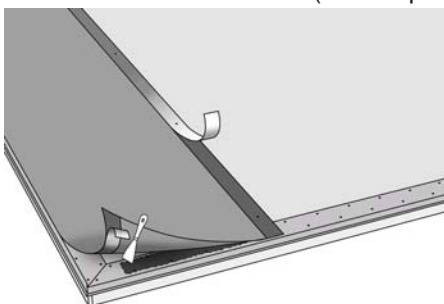
For **verges**, three alternatives exist: Kerabit Eave Flashing, Verge Flashing with ridge, and Verge Flashing. The first two must be installed before the roofing is laid, similarly to the installation of the lower eave flashing. The installation of verge flashing is started from the lower eave towards the ridge.

Note. When Kerabit Verge Flashing with ridge is used add Kerabit Sealing Adhesive on the seam of the membrane and the flashing. When Kerabit Verge Flashing is used, 50 x 50mm triangular battens are attached first, flanked by vergeboards. The roofing must be folded over the vergeboard and attached to it. As the final steps, verge flashing is attached to the vergeboard; see Figure above on the right.

Top eaves are cladded using Kerabit Verge Flashing with Ridge or Verge Flashing.

See the installation instructions for the Kerabit Verge Flashing.

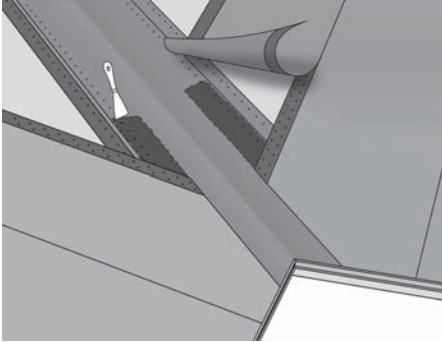
Vertical installation (roof slope from 1:2 to 1:10)



Align the Kerabit 10+ membrane with the verge, with the lower edge approximately 10mm above the point where the flashing is folded. Attach the upper edge with nails, ensuring a 100mm spacing between them (begin nailing at a point that is located around 200mm from the edge where the adhesive strip is on the bottom surface). Pre-nail the membrane with a spacing of 1m through the protective plastic film of the adhesive edge. Remove the protective plastic film of the adhesive edge on the bottom surface and press the membrane firmly against the flashing of the verge. Attach the bottom edge of the membrane to the lower eaves flashing using sealing adhesive. Align the next membrane sheet and attach it using nails, as indicated above. Pre-nail the membrane with a spacing of 1m through the protective plastic film of the adhesive edge. Lift up the edge of the membrane sheet closest to the verge from the top of the first membrane. Remove the protective plastic film from the top side adhesive edge of the first membrane sheet, and nail the membrane onto the substrate in a zigzag pattern with 100mm spacing. Note! The minimum distance of the nails from the edges of the adhesive strip must be at least 15mm.

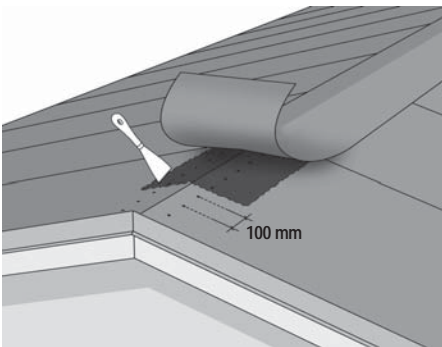
Remove the protective plastic film from the underside adhesive edge of the second membrane sheet, and press the adhesive edges against each other (so that the zigzag nailing of the first membrane is covered). Finish off the fastening of the upper edge at the seam using nails.

Repeat the same steps until the pane is finished. The membrane must be glued to the flashing of the verge opposite to the roof plane using sealing adhesive.



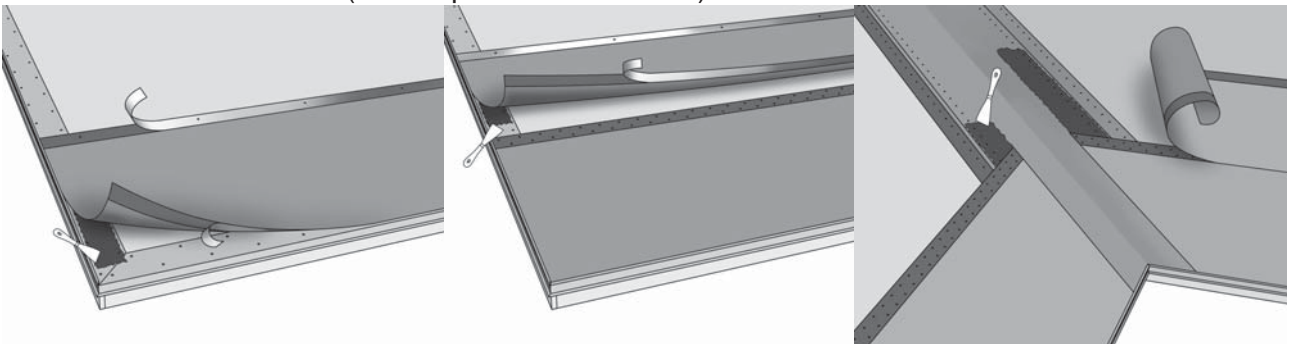
If the roof has a valley, lay the Kerabit 10+ membrane on top of a 200mm valley membrane. Cut the ends of the membrane sheets to the line of the valley with the help of a measuring board, and attach them carefully using sealing adhesive along the entire overlapping section. Do not use nails!

Ridge



Remove the adhesive edge from the top side of the Kerabit 10+ membrane sheet and slice the membrane so that you obtain two 500mm wide strips. Attach the strip on the ridge along its entire length using sealing adhesive. The strip laid across the ridge must not be attached with nails. Overlap the extensions by 150mm, attach the end of the lower membrane sheet to the substrate using nails with 100mm spacing, and attach the topmost membrane to the lower one across the entire overlapping section using sealing adhesive.

Horizontal installation (roof slope from 1:4 to 1:10)



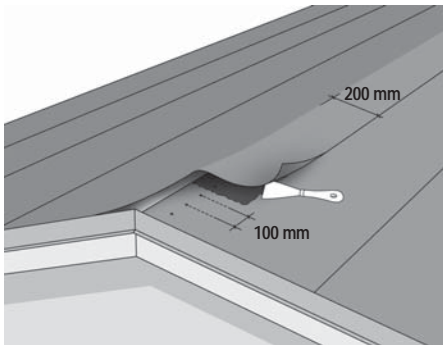
Align the membrane with the lower eave, with the lower edge 10mm above the point where the flashing is folded and with the adhesive edge against the eaves flashing. Pre-nail the top edge of the membrane with a spacing of 1m through the protective plastic film of the adhesive edge. Fold up the lower edge of the membrane sheet, remove the protective plastic film of the adhesive edge and carefully press the membrane against the eaves flashing. On the verges, glue the ends of the membrane sheets to the flashing using sealing adhesive.

Lay the Kerabit 10+ membrane sheets on top of the valley membrane so that they overlap the valley membrane by 200mm. Cut the ends of the membrane sheets to the line of the valley with the help of a measuring board, and attach them carefully using sealing adhesive.

Align the next membrane sheet with the adhesive edges overlapping and pre-nail the upper edge with a spacing of 1m, through the protective plastic film of the adhesive edge. Fold up the lower edge of the membrane sheet, from the top of the first membrane. Remove the protective plastic film from the top side of the adhesive edge of the first membrane sheet and nail the membrane at the adhesive edge onto the substrate in a zigzag pattern with 100mm spacing. Note! The minimum distance of the nails from the edges of the adhesive strip must be 15mm. Remove the protective plastic film from the underside of the adhesive edge of the second membrane sheet, and press the adhesive edges against each other (so that the zigzag nailing of the first membrane is covered).

Repeat the same steps until the pane is finished.

Ridge

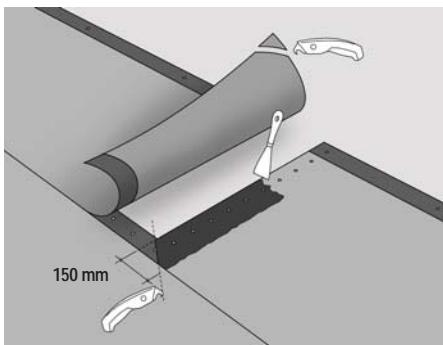


Alternative a) Cut the last membrane sheet of the first roof plane so that it is flush with the ridge and nail it onto the substrate with 100mm spacing. Fold the membrane sheet of the second roof plane over the ridge by 200mm and glue it onto the membrane sheet on the other roof plane along its entire length using sealing adhesive. Do not use nails!

Alternative b) Cut the last membrane sheets of both roof planes so that they are flush with the ridge and nail them onto the substrate with 100mm spacing. Remove the adhesive edge from the top side of the Kerabit 10+ membrane sheet and slice the membrane so that you obtain two 500mm wide strips. Glue the strip onto the ridge. The strip laid across the ridge must not be attached with nails. Overlap the extensions by 150mm, attach the end of the lower membrane sheet to the substrate using nails with 100mm spacing, and attach the topmost membrane to the lower one across the entire overlapping section using glue.

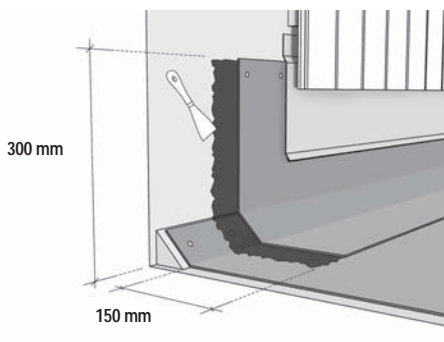
Details

Extension sections



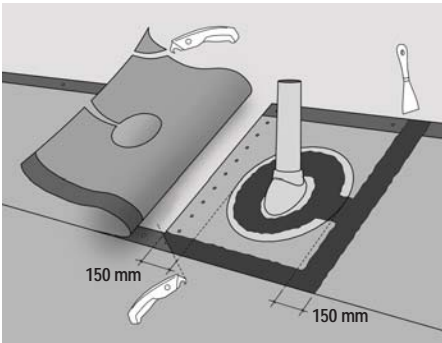
Overlap the membranes by 150mm. Cut off sections of the corners of the membrane sheets in accordance with the figure. Attach the end of the lower membrane sheet to the substrate using nails with 100mm spacing. Attach the topmost membrane to the lower one across the entire overlapping section using glue. In order to obtain a finished seam, use masking tape.

Upturns



Cut the membrane strips required for the upturn so that they extend at least 300mm up the vertical surface and 150mm over the roofing at minimum. Glue the pieces throughout in place and mechanically secure the fastening of the upturn by nailing. Protect the upturn with sheet metal cladding in order to prevent water from entering between the membrane and the vertical surface.

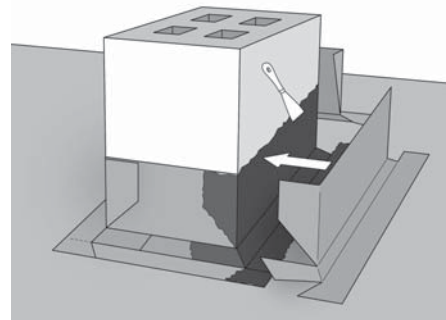
Round penetrations



Seal round penetrations with outlet seal. Dimension the membranes so that the joint will be located at the penetration. Lay the membranes so that they overlap each other along the diameter of the collar + 300mm (see the figure). Install first the membrane that will remain under the collar. Dimension the starting point: place the sealing collar in place for a while and mark an area 150mm away from the edge of the collar. Cut a hole the size of the penetration in the membrane, and use sealing adhesive to seal the membrane to the substrate. Install the outlet seal and glue and nail the collar onto the substrate. Cut a hole the size of the lower part of the outlet seal in the membrane to be laid on top of the penetration, and lay the membrane over the collar. Glue the membrane to the collar and the membrane beneath them using sealing adhesive. Finish off the base of the penetration using sealing adhesive.

The chimney and major penetrations

Before installing the roofing, attach a triangular batten at the base of the chimney or other major penetration in order to make the angle less steep. On the sides of and below the penetration, position the Kerabit 10+ sheet up to the top edge of the triangular batten. Install the membrane above the penetration only after you have completed the upturns of the chimney.



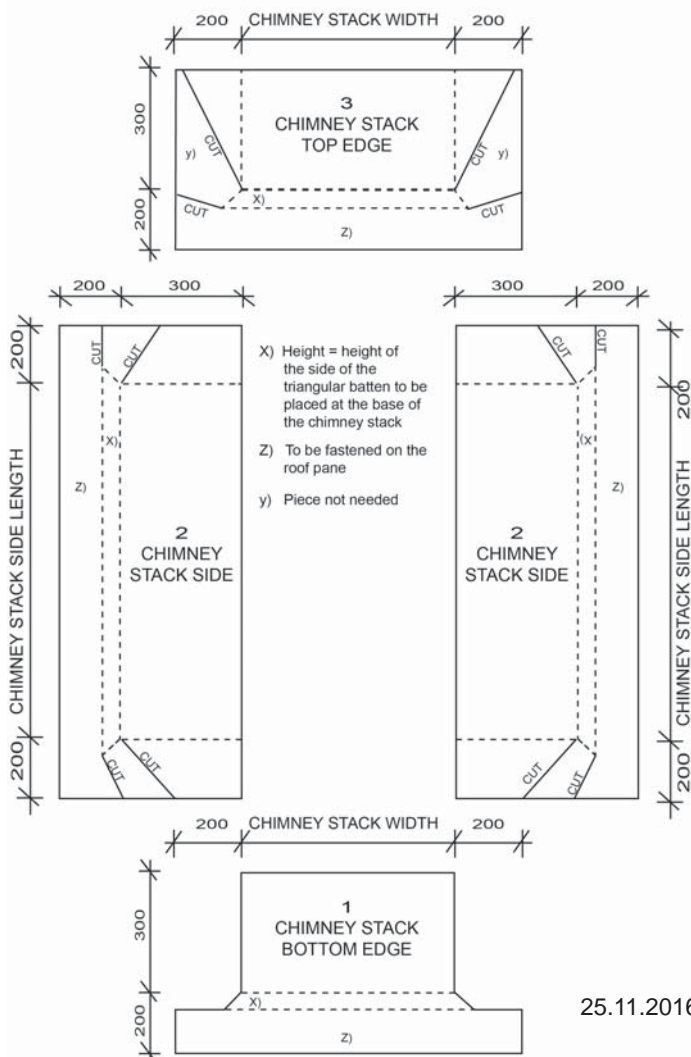
Cut the upturned pieces from Kerabit Valley Membrane or Kerabit 10+, in accordance with the adjacent figure. Glue the pieces throughout onto the chimney and substrate in the numerical order indicated in the figure. Mechanically anchor the pieces at their top edges.

Below and on the sides of the chimney, the pieces overlap the roofing; above the chimney, below it. Above the chimney, carefully glue the roofing onto the upturned piece. Cover the section of the chimney stack above the roof with sheet metal cladding.

Note. Chimneys in log buildings: Construct a plywood collar around the chimney stack which is at least 400mm in height (leave a gap between the collar and the chimney) and attach it to the roof structure using a triangular batten. Continue as described above.

Measures after installation

If through fixings are installed on the roof later, ensure that they are waterproof. Check the condition of the roof at least twice every year and clean it if necessary.



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