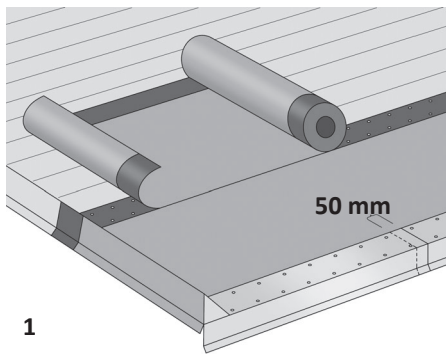


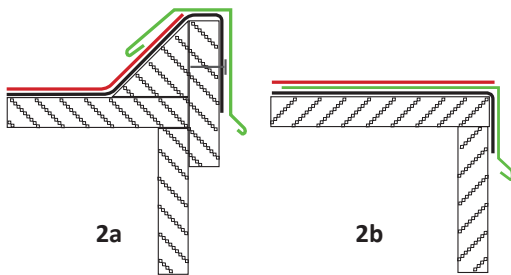
INSTALLATION INSTRUCTIONS FOR KERABIT PREMIUM



1

The Kerabit Premium bitumen shingle roofing is suitable for roofs with an inclination of 1:3 (18,4°) or steeper. The products must be checked before installation. Defective products must not be installed. Bitumen shingles must be stored in a place protected from rain and sun. Before installation, store the products at a temperature of +15 °C, or warmer, for at least a day. When installing a roofing, the temperature must be over +10 °C and the weather must be dry (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. A hooked carpet knife is needed to cut the Kerabit bitumen shingles. For gluing, use Kerabit Sealing Adhesive (glue layer or appr. 1 mm, do not apply thicker layers). For nailing, use hot-galvanized, broad-headed clout nails. The nails must penetrate the wooden substrate. Before starting the installation of the roofing, ensure proper and sufficient roof ventilation. Before installation of the roofing, triangular fillets are fixed to the base of chimneys and upturns and also on the verge if needed (image 2a).



2a

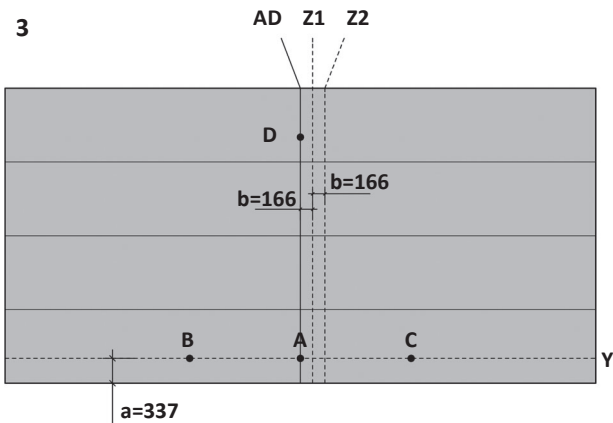
2b

Start the installation by fixing a suitable underlay membrane in accordance with the installation instructions “Installing Kerabit underlay membranes on high-pitched roofs”. Then, install the flashing on the lower eaves. Nail it in place at 100 mm intervals in a zigzag pattern. The eaves flashing joints must overlap minimum by 50 mm. (Image 1)

If you make the verge as in image 2b, fix the eaves flashing of the verge as flashing on the lower eaves. Glue the shingles to the flashing over the width of 100 mm, at least.

Next, attach the self-adhesive Kerabit Eaves Strip over the lower eaves flashing, approximately 10 mm from the fold of the eaves flashing.

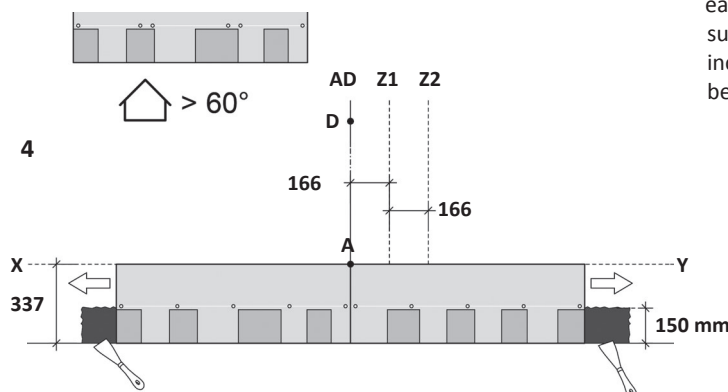
Remove the plastic film covering from the bottom surface of the strip and press the strip down firmly.



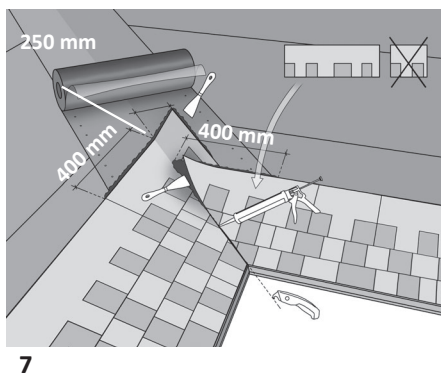
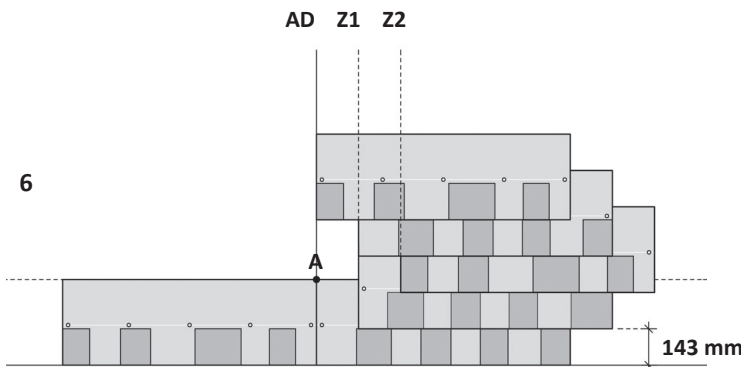
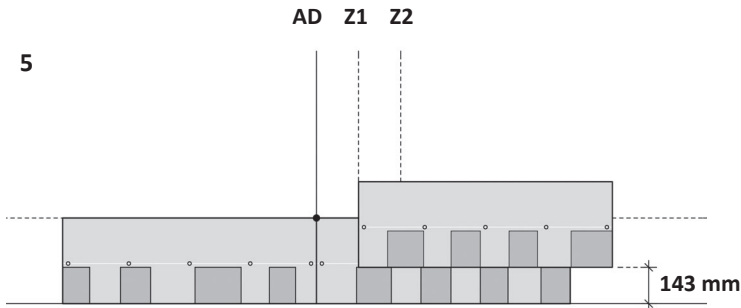
3

Draw vertical construction lines on the underlay membrane before you start installing the shingles. Mark a horizontal line XY on the lower edge of the pane, 337 mm up from the lower edge of the eaves strip. Mark point A on the line XY to the centre point of the pane. Mark points B and C on both sides of A (e.g. at a distance of 1.5 m.) Mark point D as close to the ridge as possible, using points B and C to help you (distance from D the same to both points). Connect A and D with a line. Make a second, parallel line Z1 at 166 mm from the line AD, and a third line Z2 at 332 mm from the line AD. (Image 3)

The shingles are installed one row at a time, the first row to both directions from the line AD. Glue the first row of shingles to the eaves strip at the lower edge over the height of 150 mm. Nail each shingle at the white line by four nails, as in image 4. Make sure that the nails penetrate both layers of the shingle. In the inclination of the roof exceeds 60 degrees, add two extra nails between the middlemost nails (6 nails per shingle).

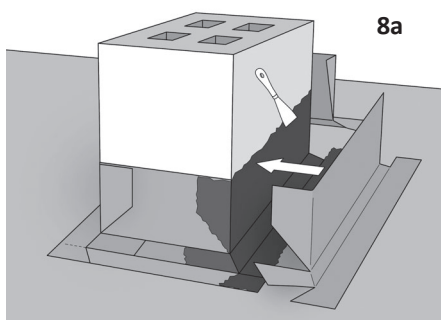


4



and nail the membrane at its edges at intervals of 100 mm. Always bring the entire shingles over the valley membrane and install extension pieces before the valley area (extension pieces should not be on glue alone, nailing is not approved on the valley area). The shingles of the second pane must extend 250 mm over the bottom line of the valley. Glue to shingles to the valley at the width of no less than 400 mm on both sides. The shingles of the subsequent pane must extend to the bottom of the valley, at least. When the installation of both panes has been completed, make a construction line at the bottom of the valley and cut the shingles of the latter pane by using the construction line as your help. When cutting, use a strip of plywood, for example, as protection. Glue the ends of the cut shingles with sealing adhesive over the distance of 400 mm, at least. Finally, seal the bottom of the valley by drawing a neat run of adhesive to the seams of the shingles. The ends of the shingles on neither pane must be nailed on the glued area. (Image 7)

Chimneys and other large lead-throughs: Before installation of the underlay membrane, install a triangle batten strip to the base of a chimney to round-out the angle. Lift the underlay membrane against the triangle batten strip and nail it to the triangle batten strip. On the sides of and below the lead-through, position the shingles up to the top edge of the triangle batten strip. Only install the shingles above the lead-through after you have completed image 8a from Kerabit Valley membrane. Cut upturn pieces according to the attached image 8a from Kerabit Valley membrane. Glue the pieces throughout to the chimney (image 8b) and the underlay in the numerical order of image 8a. Mechanically anchor the pieces by their top edge. Below and on the sides of the chimney, the pieces overlap over the roofing, on top of the chimney below the roofing. Carefully glue the membrane on top of the chimney to the upturn piece, cut the shingles at the lower edge of the triangular batten strip. Cover the chimney with sheet-metal plating.



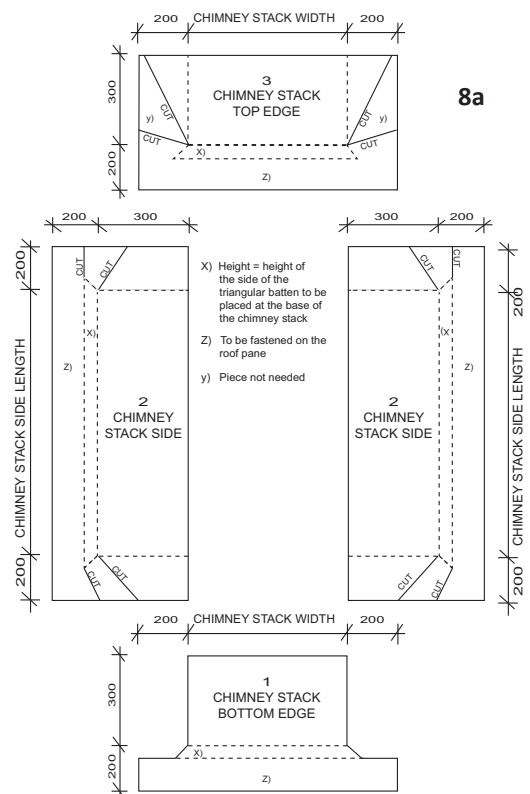
Note! Chimneys in log buildings Make a plywood collar at least 400 mm in height around the chimney (leave a gap to the chimney) and attach it to the roof structure using a triangle batten strip. Continue as in the above.

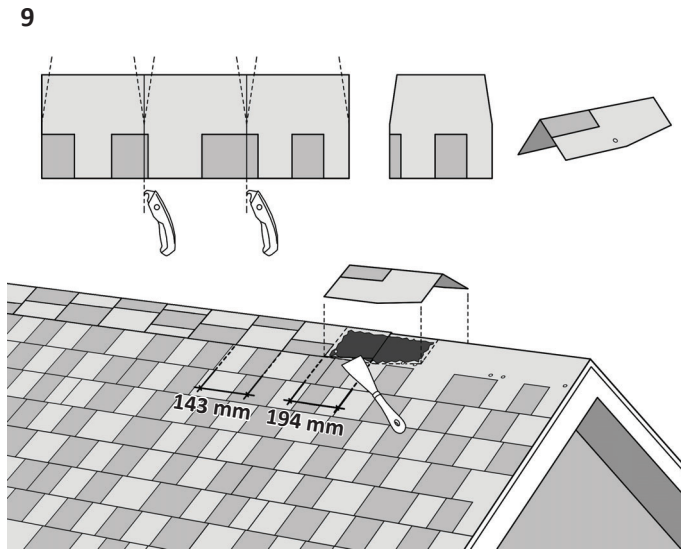
Start installing the second row of shingles from the line Z1, so that the bottom edge of the shingle overlaps the top edge of the notches in the previous shingle. Approximately 143 mm of the first row of shingles remains visible, and the nails are covered. (Image 5)

The third row of shingles starts from line Z2, the fourth from line Z1, and the fifth, in turn, from line AD. (Image 6) Make sure the shingles form a straight line. Continue as in the above all the way to the ridge, until the pane is complete.

The Kerabit Premium shingles have spots of adhesive bitumen which softens as it warms up and fixes the shingles to each other so that wind cannot lift up the edges. In cold and windy conditions fixing does not necessarily happen, so the spots of adhesive bitumen must be carefully heated with a hot air blower, and the shingles must be pressed with force for them to attach to each other.

Valleys i.e. mitre-cuts: Fix Kerabit Valley Underlay Membrane on top of the underlay membrane parallel to the valley. Lay the membrane in place, remove the protective plastic cover from the bottom side,





The round-shaped lead-throughs are sealed by using pre-shaped ready-to-use sealing products. Cut a hole the size of the lead-through in the underlay membrane, and use sealing adhesive to seal the underlay membrane to the underlay. Glue and nail the lead-through gasket to the underlay membrane. Around the lead-through, glue ends of the shingles to the piece of membrane over the distance of 150 mm. Use sealing adhesive to seal the joint between the lead-through and shingles.

The ridge is covered with ridge shingles, which are obtained by cutting a shingle into three pieces as in image 9. Before fixing it, carefully fold the shingle and place it on the ridge. Where necessary, gently warm the bottom side by using a hot air blower. Attach the shingles with two nails so that the subsequent one covers the nails of the previous one. At the ridge, the overlap of a shingle is 194 mm, thus useful length of the ridge covered by each shingle is appr. 143 mm. Glue the shingle pieces throughout to fix them.

Subsequent measures: If through mountings must be installed on the roof afterwards, ensure their waterproofing. Check the condition of the roof at least twice every year and clean it, if necessary.