

EGOSIL TAPE APPLICATION GUIDELINE



EGOSIL TAPES are permanently elastic silicone rubber tapes designed for sealing construction joints, particularly for the repair of defective joint seals in precast and structural concrete construction. The tested sealing system includes three variants of elastomer joint tapes made from plasticizer- and solvent-free, UV-resistant silicone rubber with nearly 100% polymer content, as well as the adhesive/sealant EGOSIL KLEBER and the primer EGO PRIMER FDF. EGOSIL TAPES 960 and 980/985 are also free of chlorine.

Preparation

Every substrate to which the joint tape is to be applied must be dry, solid, dust-free, and clean. The surfaces of the components must be cleaned in the area where the adhesive will be applied. Dust, cement laitance, release agents, loose gravel, old coatings, etc., must be removed. The compatibility between the new joint sealant and any existing sealant must be clarified in advance. Existing coatings, sealants, surface treatments, or impregnations that could impair adhesion and curing must be removed (alternatively, load-bearing capacity and compatibility must be proven). When preparing for joint sealing with EGOSIL TAPE, the following must be checked and observed:

Is the substrate suitable?

- Moisture content of the component must not exceed 4%
- Component, air, and material temperature must not fall below +5 °C
- Adequate bonding surface width must be ensured

Are there old sealants or joint tapes in the joint?

- Restraint stresses (constraint forces) must be avoided
- Building element movements must be accommodated
- Compatibility between old and new sealant must be ensured

Is the minimum open joint width ensured?

- Minimum open joint width must be secured depending on joint spacing
- If necessary, cut open joint edges to approx. 5 mm gap

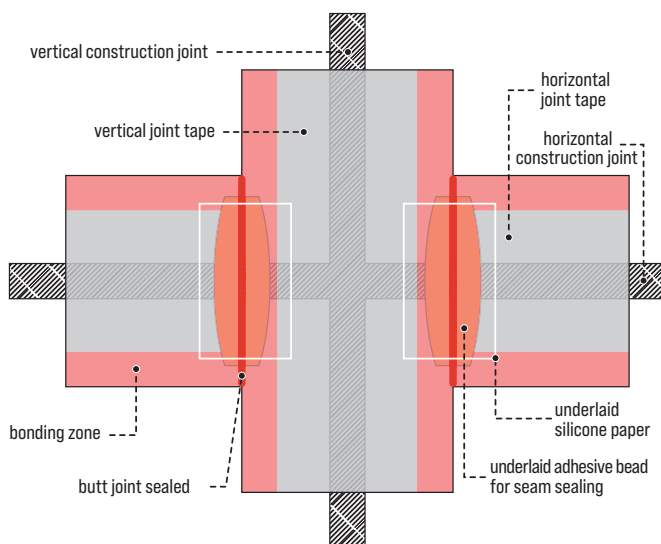
Is concrete repair required?

- Refer to DAfStb (German Committee for Reinforced Concrete) guideline
- Repair cracks, spalling, edge breakouts, etc.
- Treat corroded steel components according to RL-SIB (guideline for protection and repair of concrete structures)

Application of Joint Tapes

- ① The adhesive and sealant EGOSIL KLEBER or EGOSILICON 300 must be applied evenly, over the entire surface, and without air bubbles onto the prepared bonding surfaces of the components, which are externally delimited by smooth masking tape.
- ② The amount of adhesive applied in the bonding zone must be sufficient to ensure an undisturbed adhesive layer thickness of at least 1-2 mm beneath the joint tape.
- ③ The length of the adhesive bead applied at a time must be limited so that the tape can be adhered and the adhesive smoothed within the skin formation time.
- ④ The adhesive layer thickness must be applied so that when pressing the joint tape, the adhesive does not spread into the movement zone of the tape.
- ⑤ Before the adhesive skins over, the EGOSIL TAPE is applied and pressed down. This is done from the center toward the edges so that excess adhesive is pushed out onto the smooth masking tape. The excess adhesive must be removed by peeling off the masking tape before the adhesive skins over.
- ⑥ The edges of the tape must then be pressed down again, and any remaining EGOSIL KLEBER or EGOSILICON 300 should be smoothed with EGO SMOOTHER. Residues of cured adhesive on the tape surface or the component edges can no longer be removed.
- ⑦ The installation of EGOSIL TAPE is carried out from top to bottom. Leave approximately 1 cm protruding at the top to prevent water ingress. The joint sealing at the upper roof edge must be applied at least 10 cm below the roof overhang.
- ⑧ Seal the upper edge horizontally to prevent water ingress.
- ⑨ Do not bond the end of the joint tape transversely at the lower building termination; the movement zone must remain free of adhesive. If the joint tape is laid in a loop shape, the loop should be evenly wide and deep.
- ⑩ Butt joints and intersection points must be additionally sealed with EGOSIL KLEBER or EGOSILICON 300. The butt joints at the joint intersections should be backed with a strip of silicone paper or release foil to prevent three-sided adhesion to the substrate.

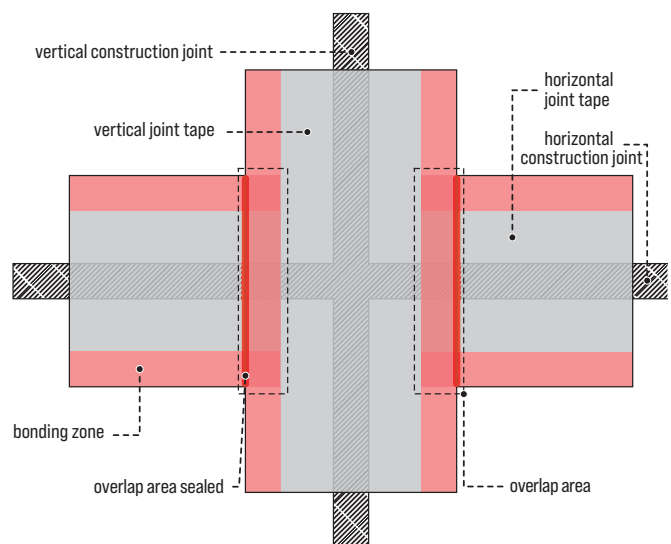
Design Options for Joint Intersection Points



Variant 1:

Butt joints without overlap.

The horizontal joint tapes are butted with adhesive to the first-applied vertical joint tape, and the seam is sealed homogeneously. To bridge the joint cavity, a strip of silicone paper is placed under the seams to prevent three-sided adhesion to the substrate.



Variant 2:

Overlapping joints, overlapping only in the adhesive zone area.

The vertical joint tape is applied over the ends of the first-laid horizontal joint tapes and sealed. The width of the overlap corresponds only to the width of the adhesive zone of the vertical joint tape.

10 Steps to the Perfect Sealing with EGOSIL TAPE

- ① Clean substrate, joint edges, and flanks
- ② To create clean and tight joint edge zones, mask the areas to be protected with adhesive tape
- ③ Select the primer depending on the substrate and pretreat the bonding surfaces. Use EGO PRIMER FDF for absorbent substrates and EGO PRIMER FML for metal substrates.
- ④ Allow the primer to flash off before applying the sealant; flash-off time is approximately 30 minutes
- ⑤ The application of EGOSIL KLEBER or EGOSILICON 300 depends on the substrate and is applied evenly and bubble-free with an adhesive thickness of at least 1-2 mm on the bonding surface
- ⑥ The length of the adhesive bead applied at one time must be limited so that the tape can be adhered and the adhesive smoothed within the skin formation time. The joint tape should be applied and pressed within the skin formation time of 15-20 minutes.
- ⑦ Press the joint tape from the center toward the edges, ensuring that no adhesive enters the movement zone when pressing the tape
- ⑧ Remove excess adhesive from the joint edge area promptly and bevel-smooth it with EGO SMOOTHER
- ⑨ Remove the masking tape within the skin formation time of 15-20 minutes and, if necessary, perform touch-ups or smoothing
- ⑩ Seal joint intersections and butt joints additionally in accordance with IVD Guideline No. 4

Additional information

Processing is only permitted at component temperatures above +5°C. EGOSIL TAPE cannot be painted over with commercially available standard paints. In exceptional cases, please consult us. When processing the EGOSIL TAPE product system, the product data sheets and IVD Guideline No. 4 must be observed. EGOSIL TAPE complies with VOB/DIN 18349 and has been tested according to IVD Guideline No. 4. For special problem cases, please request our technical application support.