

APPLICATION INSTRUCTIONS

KEMPERTEC MA-SF METAL ADHESIVE



With the right
know-how, you can
achieve a **perfect**
adhesion result



KEMPEROL
The waterproofing

1. PRE-TREATING SUBSTRATES

Substrates must be dry, even, capable of withstanding loads and free from contaminants, and must be prepared appropriately. First, remove loose particles and dusts from the respective substrates such as **KEMPEROL** waterproofing, elastomer membranes and insulation materials as well as sandy, highly absorbent and open-pored substrates such as perforated bricks (Poroton), old cement-based or natural stone surfaces. Before metals and metal sheets are bonded, use **KEMCO MEK Cleaning Agent** to remove oil, grease and any substances that may hinder adhesion, and sand them with a sheet of P40 grit sandpaper to avoid

adhesion problems. To ensure an even distribution of the metal adhesive under the sheet metal, we recommend leaving approx. 1 cm free at the edge; otherwise, there is a risk of the adhesive running down the vertical surface.

NOTE

Larger areas of unevenness (> 3 mm) should be levelled before applying **KEMPERTEC MA-SF Metal Adhesive**. When bonding wood, make sure that you only use unvarnished, dry wood (residual moisture < 20%). In the case of perforated bricks and similar, a complete bearing surface must be ensured.



2. PRIMING (OPTIONAL)

Substrates such as gravelled bitumen sheeting, calcium silicate brick and concrete do **not** require priming. **KEMPEROL** waterproofing and non-gravelled elastomer membranes must be cleaned and then primed with a solvent-free, two-component primer, e.g.

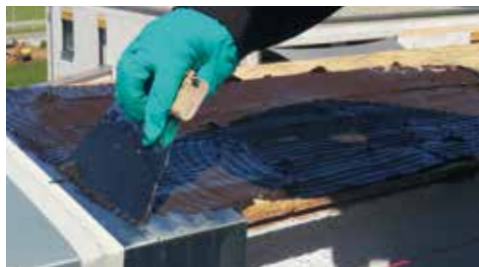
with **KEMPERTEC EP5 Primer** and sprinkled with **KEMCO NQ 0712**. Sandy, highly absorbent and open-pored substrates must be pre-treated, for example with **KEMPERTEC TG Primer**.*



* **KEMPEROL 1K-PUR** and **KEMPEROL 2K-PUR**, **KEMPERTEC EP** or **EP5 Primer** incl. **KEMCO NQ 0712 Natural Quartz**, **KEMPEROL AC Speed** or **AC Speed+**, **KEMPERTEC AC Primer** incl. **KEMCO NQ 0712 Natural Quartz**.

3. APPLYING THE MATERIAL

KEMPERTEC MA-SF Metal Adhesive is ready to use and can be taken directly from the container with a trowel. Using the **KEMPEROL professional notched trowel**, the material is applied evenly, in parallel and over the entire bonding area along the length of the metal, in the required layer thickness. To prevent the material from running down the facade/parapet, leave a gap of approx. 1 cm at the edge without any adhesive. This allows the air to escape easily when the metals are applied and pressed down, resulting in full-surface bonding without any cavities. This also creates a sound-absorbing effect in the event of rain-



fall. For bonding areas wider than 30 cm, the metal adhesive must be applied on both sides.

NOTE

When bonding metal to metal, consider also using mechanical fasteners. The metal adhesive must be applied over the entire surface and consumption must not exceed 1.5 kg/m². Metal covers (wall and parapet copings) located in areas subject to alternating sun and shade must also be fixed mechanically on the upper side.



4. BONDING THE METAL PARTS

Now bond the metal or sheet metal parts to the substrate by pressing the metal parts onto the substrate with the appropriate pressure. For smaller dimensions, pressing down firmly with your hand is sufficient; for larger sheets, use a board, for example, to distribute the pressure.

NOTE

In the case of wall or parapet copings consisting of several individual parts, a splice plate that is at least 10 cm wide and adapted to the metal profile must be glued under the joints to compensate for expansion. Depending on the metal material, the bonding of metal to metal should not exceed approx. 4–6 cm. In the case of continuous metal profiles with a length of

approx. 3 m, expansion compensation must be provided in the same way for temperature-related changes in length, to ensure that there is no water ingress. The metal spacing for the expansion compensation must be selected depending on the ambient temperature and the expansion coefficient of the metal. This prevents the metals from pushing each other up (Fig. 1 and cross-sections). The adhesive should not go beyond the metal that is to be bonded to avoid contamination or yellowish discolouration. To prevent the metals/profiles from being sagging in the joint area, a splice plate (see Fig. 1) is placed underneath.

Areas that are not to be bonded should be masked or protected. Excess material, which may arise, for example, when two metal plates

and the splice plate are pushed together due to bead formation, should be removed immediately, unless the metal plates have been masked on the upper side.

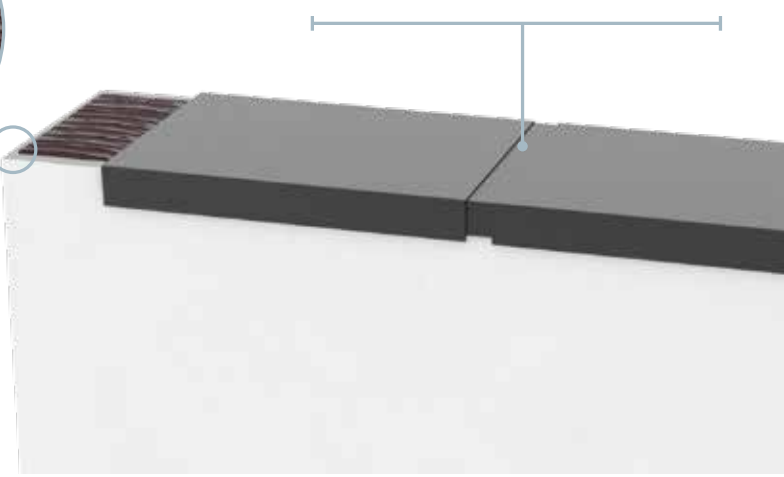
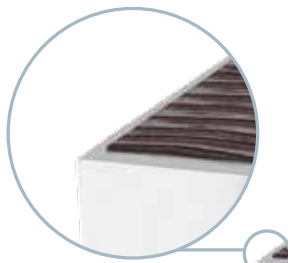
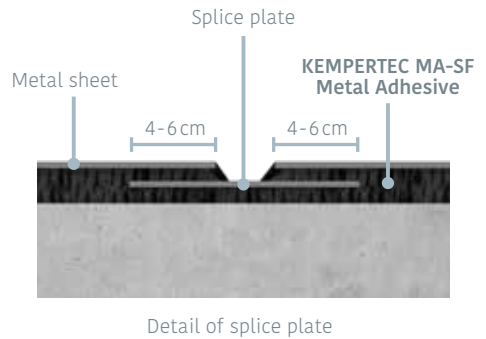
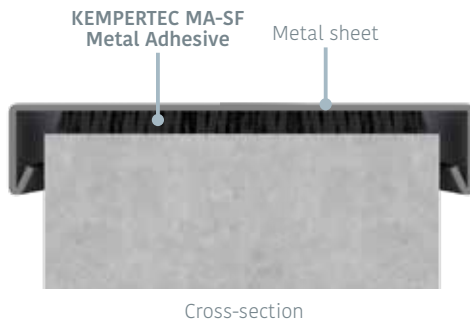


Figure 1: Bonding with the splice plate

NOTE: BONDING ON SLOPING AND VERTICAL SURFACES

Structural elements with vertical surfaces or an incline of more than 3° must also be mechanically secured by suitable fasteners. When applied correctly, **KEMPERTEC MA-SF Metal Adhesive** will not run down vertical surfaces when freshly applied.

Therefore, all you need is mechanical fasteners to prevent the metals from slipping. For use on vertical areas, apply **KEMPERTEC MA-SF** on both sides, i.e. apply approx.

1.0 kg of the material per m² to each of the sides that are to be bonded. Supplement the specified number of fixing points with suitable fasteners such as adhesive tape. After installation, press down on the bonded materials very carefully and evenly. When installing a covering on a sloping wall, ensure that the materials can expand sufficiently by overlapping the metals (3-5 cm)*.

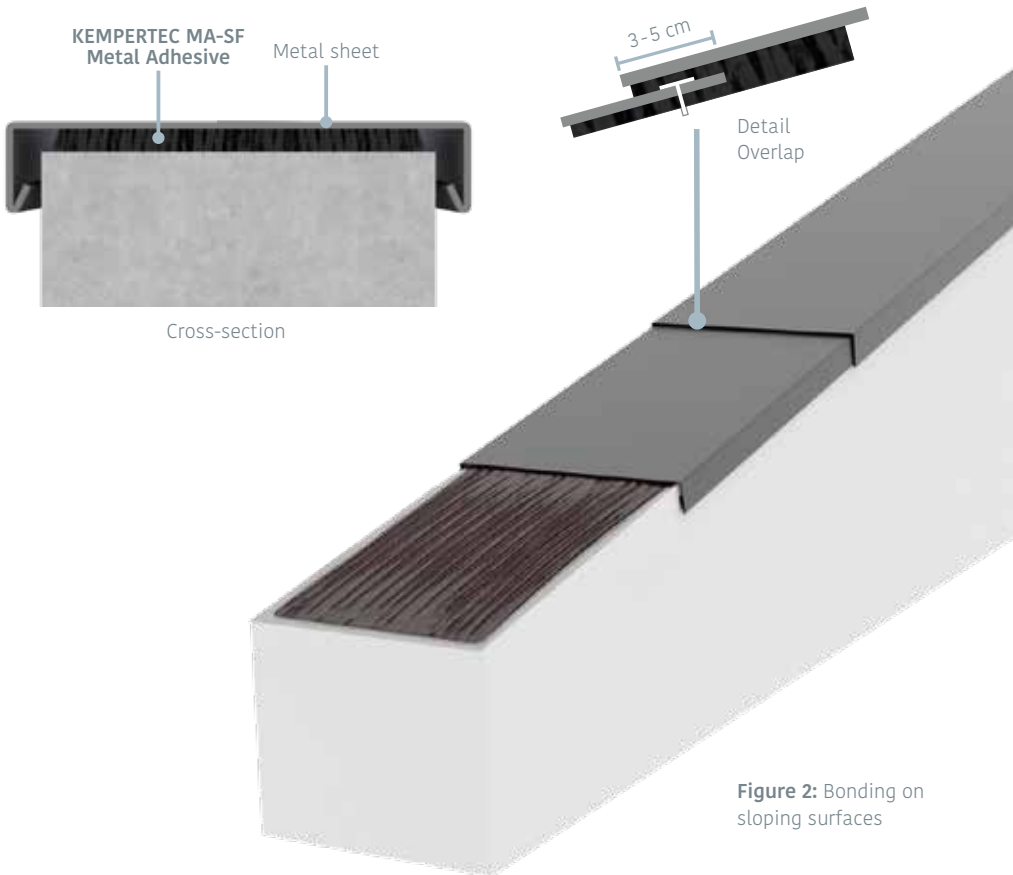


Figure 2: Bonding on sloping surfaces

*The maximum overlap of metal on metal is 5 cm.

AREAS OF APPLICATION

KEMPERTEC MA-SF Metal Adhesive is a solvent-free, permanently plastic bituminous adhesive compound that can be used to easily bond window and wall coverings, verge and eaves flashings, roof-edge finishes such as parapet copings, and metal cladding.

PROCESSING TEMPERATURE

The ambient and substrate temperatures must be **between 0°C** and +50°C during the application and curing of **KEMPERTEC MA-SF Metal Adhesive**. The same applies to the materials to be bonded.

MATERIALS

Metal profiles and common metals, e.g.

- copper
- aluminium
- stainless steel
- galvanised steel

Building materials

- calcium silicate brick
- concrete/aerated concrete
- clay brick
- perforated brick
- wood
- chipboard and OSB board
- KEMPEROL waterproofing, polymer-bitumen membranes and insulation materials

NOTE: Please refer to the technical data sheet 'Bonding in roofing' when using the product.

CONSUMPTION

On a level substrate, consumption is 1.5–2.0 kg/m², but consumption may increase on an uneven substrate. However, consumption must not exceed 3.0 kg/m², as there is a risk that material that is not yet fully cured could slip under its own weight in summer temperatures.

The exact consumption depends on the notching of the trowel:

NOTCHING IN MM	CONSUMPTION KG/M ²	CAN BEAR LOAD AFTER HRS.
4	1.50	2.0
6	1.75	2.5
8	2.00	3.0

CURING TIMES

The metals to be bonded can be joined to the substrate immediately, or up to 30 minutes after applying **KEMPERTEC MA-SF Metal Adhesive**. The material can bear weight after 2–3 hours and is fully cured after 14 days.