

PACKAGING

Sika® Metalsheet FBV Set

COMPONENTS

- 15 m Roll; H=12 cm
- Mounting Brackets
- Joint Clamps

OPTIONAL ACCESSORIES

for connections to metal waterbar:

- KS 12 Clamping Bars



WORLDWIDE SYSTEM SOLUTIONS FOR CONSTRUCTION AND INDUSTRY



CONCRETE



WATERPROOFING



ROOFING



FLOORING



CORROSION AND FIRE PROTECTION



SEALING AND BONDING



REFURBISHMENT



BUILDING FINISHING



INDUSTRY



Sika® Metalsheet FBV APPLICATION INSTRUCTIONS

As a subsidiary of the globally operative Sika AG, Baar/Switzerland, Sika Deutschland GmbH is one of the leading suppliers of building chemical product systems as well as sealants and adhesives for industrial manufacturing.



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BUILDING TRUST



BUILDING TRUST



SEALING OF CONSTRUCTION JOINTS

SIKA TECHNOLOGY WITH FRESH CONCRETE BONDING (FBV) for reliable and secure sealing of construction joints. A sealing solution with huge possibilities and benefits, for reliable and secure sealing of concrete structures. The Sika® Metalsheet FBV is a galvanized sheet steel waterstop with a special coating to increase its adhesion to fresh concrete. This technology creates a permanent bond between the waterstop and the curing fresh concrete. Pressure water-tight underflow protection prevents voids forming through which water can flow, thereby guaranteeing a high success rate.

BENEFITS OF THE Sika® Metalsheet FBV

- Function tested with 50 m water head.
- Approved for use against water under pressure up to 20 m water head by general appraisal certificate.
- Embedding depth can be reduced to 3 cm (no upstand or brackets required).
- Butt joints bonded with special coating (no welding necessary).
- Can be used in in-situ concrete and precast element walls.
- Water-tight sealing of construction joints in waterproof constructions.
- Effective bond with fresh concrete reliably protects against underflow/voids.
- Easy installation and handling.
- Easy-to-handle packaging unit with 15 m roll and all necessary accessories (installation brackets, joint clamps).

YOUR BENEFITS AT A GLANCE



QUICK AND EASY TO USE
whatever the weather



COST SAVING
thanks to user-friendly packaging and processing



SECURE
special coating and General Appraisal Certificate (ABP)

APPLICATION INSTRUCTIONS

GENERAL INSTRUCTIONS: All known empirical data at the time of writing have been taken into account in these instructions. They are based on general knowledge and do not take individual applications into consideration. No claims for compensation can be derived from the information provided. Please contact our technical support team if required. Subject to technical changes without notice.

GENERAL INSTRUCTIONS

- Sika® Metalsheet FBV waterstops are supplied on 15 m rolls.
- The sheets have a transparent FBV-coating on one side which is shielded by a protective film divided in the centre. The protective film must be removed before the individual concrete pours.
- Installation is not limited by the temperature.
- Undulations of the profile do not affect the functional performance of the metalsheet (minimum clearance from the reinforcement 3 cm).



1. BASE/WALL INSTALLATION

- Sika® Metalsheet FBV is positioned and installed on top of the reinforcement. The coated side should face the water-facing side.
- Sika® Metalsheet FBV is bent into corners and around curves to become fully integrated into the corresponding joint.
- The bottom protective strip is pulled off before fixing the metalsheet (or even after fixing, but in all cases before concreting the base slab).
- The Sika® Metalsheet FBV is positioned in the middle of the construction joint – with the coated side facing the water-facing side. The minimum clearance from starter bars should be at least 3 cm.
- Sika® Metalsheet FBV is attached with mounting brackets at 50 cm intervals. This is done by attaching with tie wire to the top reinforcement layer. In corner areas the clearance of the fixings from the corner should be 20 cm max. Fit the fixing clamps so that the shorter, curved leg is on the coated side.
- Lap the joints by 10 cm. Remove the protective film from the joint area, press the ends firmly together and secure with a joint clamp or mounting bracket.
- Connections for vertical joints (wall/wall) are usually carried out just before reinforcement and/or before the formworking of the walls (see description: "Connections").



2. CONCRETING THE BASE SLAB

- Before concreting, further checks should be made that the sheet is fully bonded and securely in place and that the bottom protective strip has been removed.
- Approximately half of the Sika® Metalsheet FBV – but always at least 3 cm – should be embedded in the first concreting section.

3. CONCRETING THE WALLS

- Snip off the mounting brackets with bolt cutters at the top of the sheet before concreting the second section (wall). The shortened clamp leg is thus removed. This makes it easier to pull off the top half of protective strip, allowing the whole of the contact surface of the special coating to be used. This prevents voids forming around the mounting brackets.
- The top protective strip should be pulled off before installing the reinforcement and/or before closure of the formwork.
- Position waterstops in the centre of wall joints and secure (see Connections: T-connection); then pull off the protection strip halves.
- The concrete fall-height should be limited to a minimum. In general, the requirements are for regulation-compliant concrete pouring, compaction and post-treatment according to applicable codes of practice (DIN 1045, waterproofing regulations etc.). Contact of the waterstop with the vibrator is to be avoided.

4. CONNECTIONS

- T-Connection (horizontal base slab joints/vertical wall joints): First, remove protective film, overlap by at least 6 cm, press firmly and secure with two joint clamps.
- Connection to expansion joint waterbar: Clamp the Sika® Metalsheet FBV to the waterstop using KS 12 clamping bars.