



INSTALLATION PROCEDURE DAMTEC SUB BALLAST MAT K

1. PRODUCT DESCRIPTION

DAMTEC® SBM K is an isolation and protection mat for railway track construction, tested in accordance with DIN 45673-5 – Mechanical Vibrations – Resilient elements used in railway tracks – Part 5: Laboratory test procedures for under-ballast mats. The SBM mat absorbs vibration and reduces acoustic emission, as well as structure-borne sound transmission. The SBM mat also increases the lifespan of ballast by reducing vibration and better distributing loads.

2. DELIVERY AND STORAGE

DAMTEC® SBM K mats are typically supplied in shrink-wrapped rolls on pallets, but can also be supplied in custom-sized slabs to meet specific dimensional requirements. The SBM mats should be stored in a dry location, and for longer storage periods, the material should remain shrink-wrapped and stored vertically.

Accessories should be treated and stored in accordance with the product data sheets. The adhesive should not be stored below 50°F.

3. SUBSTRATE PREPARATION

Suitable substrates to apply the SBM K mats on are gravel, cement, and bitumen base courses.

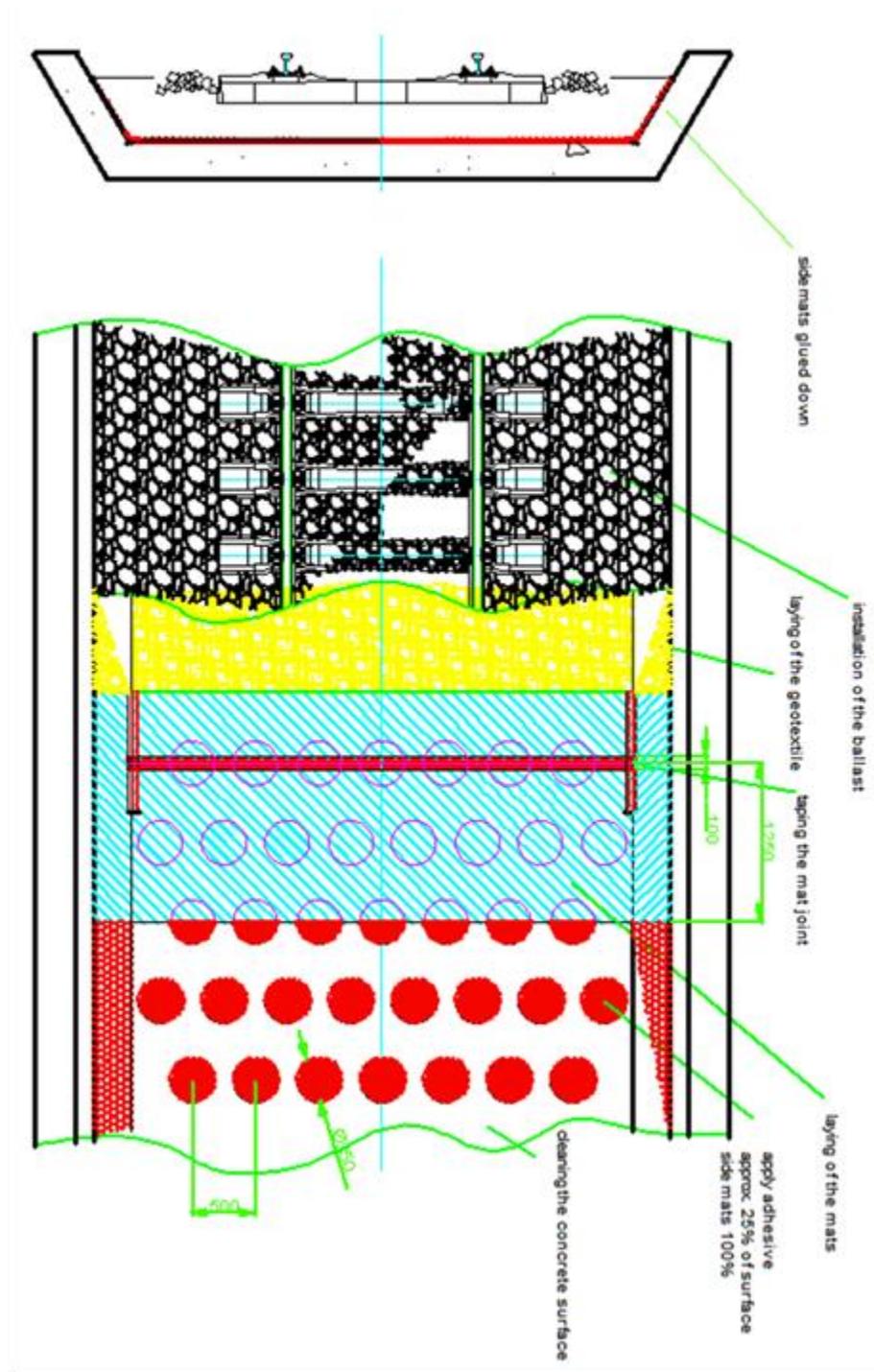
Plastic liners may cause degradation of the SBM layer and should be checked for chemical compatibility. A PE or PP geotextile fabric with a minimum weight of 10 oz. can be used between the liner material and the **DAMTEC® SBM K** mat layer.

The elastic properties of the SBM mat allow for small undulations in the bedding layer. Large undulations, protruding edges, and loose sharp objects can puncture or damage the SBM mat and should be removed prior to placement of the mat.

In areas where the SBM mat must be glued to the substrate, the substrate should be clean, dry, and dust-free.



4. INSTALLATION SCHEMATIC OF SBM K MATS



5. INSTALLATION OF SBM K MATS

DAMTEC® SBM K mats must be laid at right angles to the track axis. The mats can be cut using a low speed sabre tooth timber saw or carpet knife and a steel straight edge. Before cutting ensure that the material is supported on a hard, even surface.

When SBM mats are required to be adhered to the substrate, they should be adhered using an approved two-component polyurethane adhesive. The quantity of adhesive used should cover approximately 25% of the substrate surface (for details sheet adhesive data sheet). The installation instructions of the adhesive manufacturer must be observed.

The adhesive should only be installed on clean, dry, and dust-free surfaces. The air temperature should be greater than 40°F.

Adhesive Consumption Calculation for Horizontal Surfaces:

- 12kg packs (10kg Körapur 672 + 2x 1Kg Köracur TH650)
 - For adhering 650 ft² **DAMTEC® SBM K V**
- 7kg packs (6kg Körapur 666 + 1Kg Köracur TH650)
 - For adhering 75 ft² **DAMTEC® SBM K V**

Vertical sections can also be fastened using temporary mechanical devices (i.e. clamps, etc.). Ensure that metal fastening devices are not left in place that can cause sound bridging.



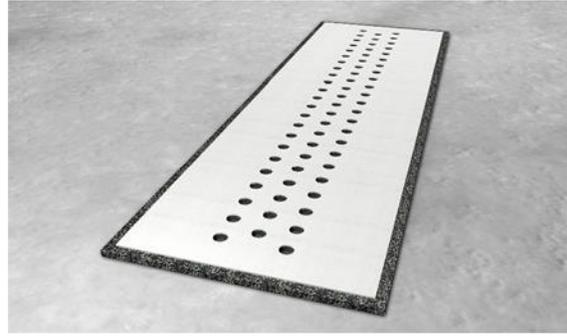
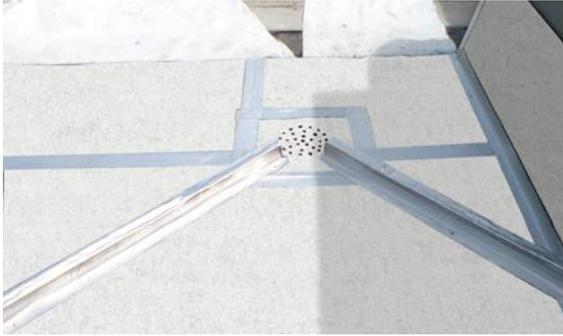


Joints must be sealed using an approved tape (Gerband 602.25). The surface of the SBM mats must be dry during installation of the tape.



Drainage Paths

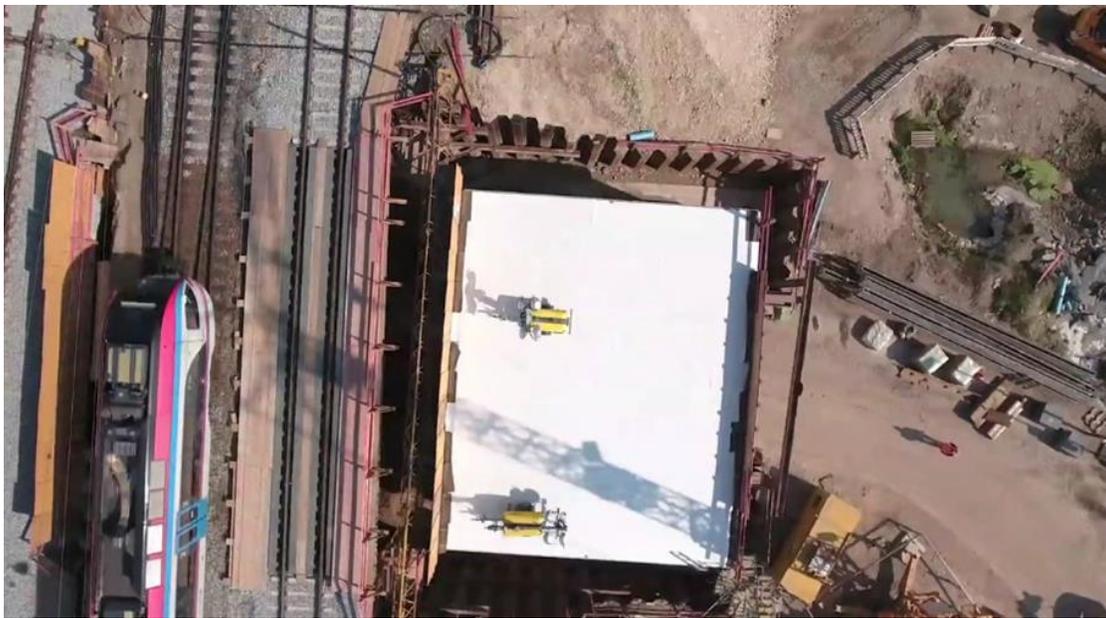
Depending on the design of the structure, an inflow to the drainage outlets must be created. Drainage paths can be cut into the ballast mat or can be drilled. Areas of the mat that are within the drainage path must be perforated. The dimensions of the perforations should be in accordance with the project requirements.



Installation of Geotextile Protective Layer

Prior to the placement of ballast, the surface of the SBM mats must be covered with a geotextile protective layer (Britex-PP/PET-250/1210-A100 GRK 4) to protect the surface from intrusion from dust and other fine particles. The geotextile protective layer should be adhered to the SBM mat surface using the same adhesive used for adhering the mats to the substrate (approximately 25% of the surface of the mats).

Note: This step is not required if using the SBM K V version of the mats with a pre-installed geotextile layer.



6. ACCESSORIES

- **Adhesive for Horizontal Surfaces:** Körapur 672 / Köracur TH 650
- **Adhesive for Vertical Surfaces:** Körapur 666 / Köracur TH 650
- **Joint Sealing Tape:** Gerband 602.95