

1. Application Sector

DAMTEC® KRAIBURG SBM is an isolation and protection mat for railway track constructions, proofed in accordance to DIN 45673-5 - mechanical vibrations – resilient element used in railway tracks – part 5: laboratory test procedures for under ballast mats.

The SBM mat absorbs vibrations and reduces acoustic emission as well as structure borne sound transmission. It is also effective in reducing the frequency of the ballast maintenance requirement through reduced vibration and better balanced loading. It protects construction and waterproofing.

2. In General

With our data based on our tests and experience we want to advise you the best of our knowledge and belief.

The mats have been approved by German Railway DB AG. Until further notice, each application in the network of German Railway requires the approval of the DB AG. Furthermore it must be observed in the network of German Railway the following DB - guidelines:

- 824.1510_Bettungsarbeiten_USM_einbauen,
- 824.1510_Z01_USM_einbauen_Brandrisiko und
- 824.1510_Z02_USM_einbauen_Verlegen_und_Verkleben

3. Delivery and Storage

DAMTEC® KRAIBURG SBM is generally supplied in shrink wrapped rolls on pallets but it can also be supplied in the form of purpose made slabs to suit specific dimensional requirements.

The product requires dry storage; for longer periods the material should remain shrink wrapped with rolls stored vertically.

Accessories should be treated and stored according to the data sheets. Adhesive may not be stored below 10°C.

4. Substrata and Preparations

Suitable bedding layers are compacted gravel, cement and bitumen bound base courses.

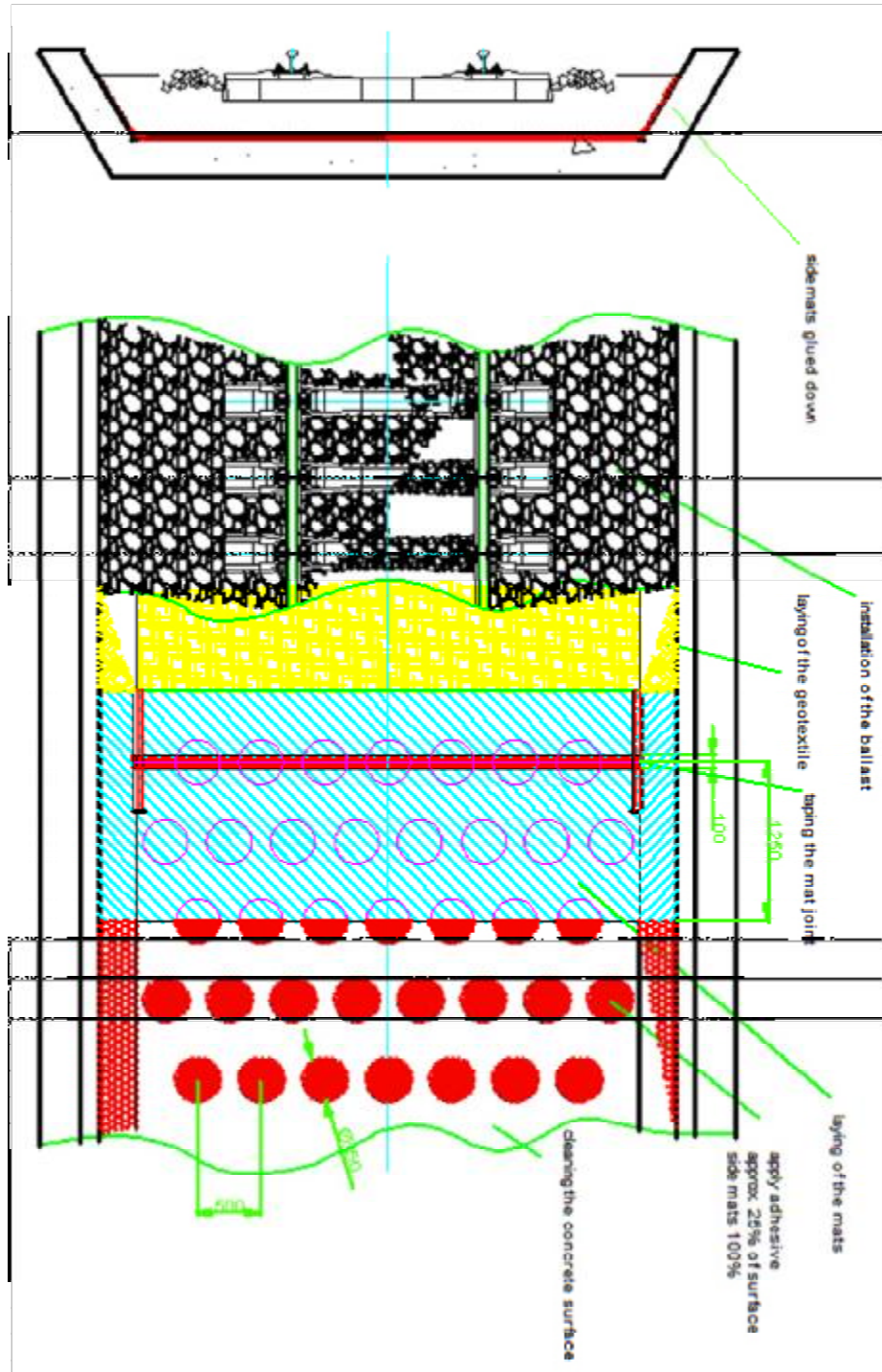
Plastic liners can cause degradation of the SBM layer and should be checked for chemical compatibility. In case of doubt only a PE or PP geotextile of minimum weight 300 g/m² should be used between the liner material and the **DAMTEC® KRAIBURG SBM** layer.

The elasticity of the SBM mat allows for the absorption small undulations in the bedding layer. Large undulations and protruding edges as well as loose sharp objects than can puncture or damage the SBM mat should, however be avoided as these can reduce the sound isolation properties of the matting. If necessary a concrete blinding layer should be applied.

In areas where the SBM mat needs to be glued the bedding surface should be dry and dust free.

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6. Installation of Sub Ballast Mat

The 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 an even hard surface.

When installing the sub ballast mats they have to be glued on the substrate with a two-part polyurethane adhesive at certain points. The amount of adhesive should be about 25% substrate surface (for details see data sheet). The installation instructions of adhesive manufacturers have to be observed.

The processing of the adhesive requires a dry and clean surface and a construction component- and air - temperature greater 5°C.

Depending upon requirement and planning further layers of **DAMTEC® KRAIBURG SBM** will be installed.



Vertical sections can be fixed using temporary mechanical devices (e.g. clamps, etc.). Ensure that no metal fixings are left in place that can cause sound bridging. The bonding of the side areas is over entire surface.

7. Sealing of the joints

Joints have to be sealed using a special approved 100mm wide tape (type Gerband 602.25, 1mm x 100 x 20.000mm). While sealing the sub ballast mat has to be dry.



8. Drainage paths

Depending on the design of the buildings an inflow to the drainage must be ensured. Drainage paths can be cut into the ballast mat or can be drilled. Over the holes of the drainage path the mat has to be perforate. The diameter of the perforation has to be to adapt from the underlying drainage path structure.



9. Installation of geotextile protective membrane

Prior to the installation of the ballast it is necessary to cover the SBM surface with a geotextile protective membrane (type Britex-PP/PET-250/1210-A100 GRK 4) in order to protect it from dust clogging and abrasion. The geotextile has to be glued with the same adhesive as for the mats (selectively 25% of the area).



10. Accessories

- adhesives for horizontal areas: Körapur 672 / Köracur TH 650
- adhesives for vertical area: Körapur 666 / Köracur TH 650
- adhesive tape: Gerband 602.95
- geotextile: Britex-PP/PET-250/1210-A100 GRK 4

DISCLAIMER:

The information provided is intended only as a summary and general overview on matters of interest. The information is not intended to be comprehensive nor does it constitute expert advice. KRAIBURG RELASTEC shall not be liable for incidental and/or consequential damages directly or indirectly sustained, nor any loss caused by not complying with relevant industry/product standards and improper use of any Damtec® products. Due to varying construction methods, any other circumstances not stated above should be brought to the attention of KRAIBURG RELASTEC for review. For suitability to the prevailing site conditions, it is advised that certified testing should be conducted. It is recommended to seek further advice on your application with our technical staff prior to use.

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