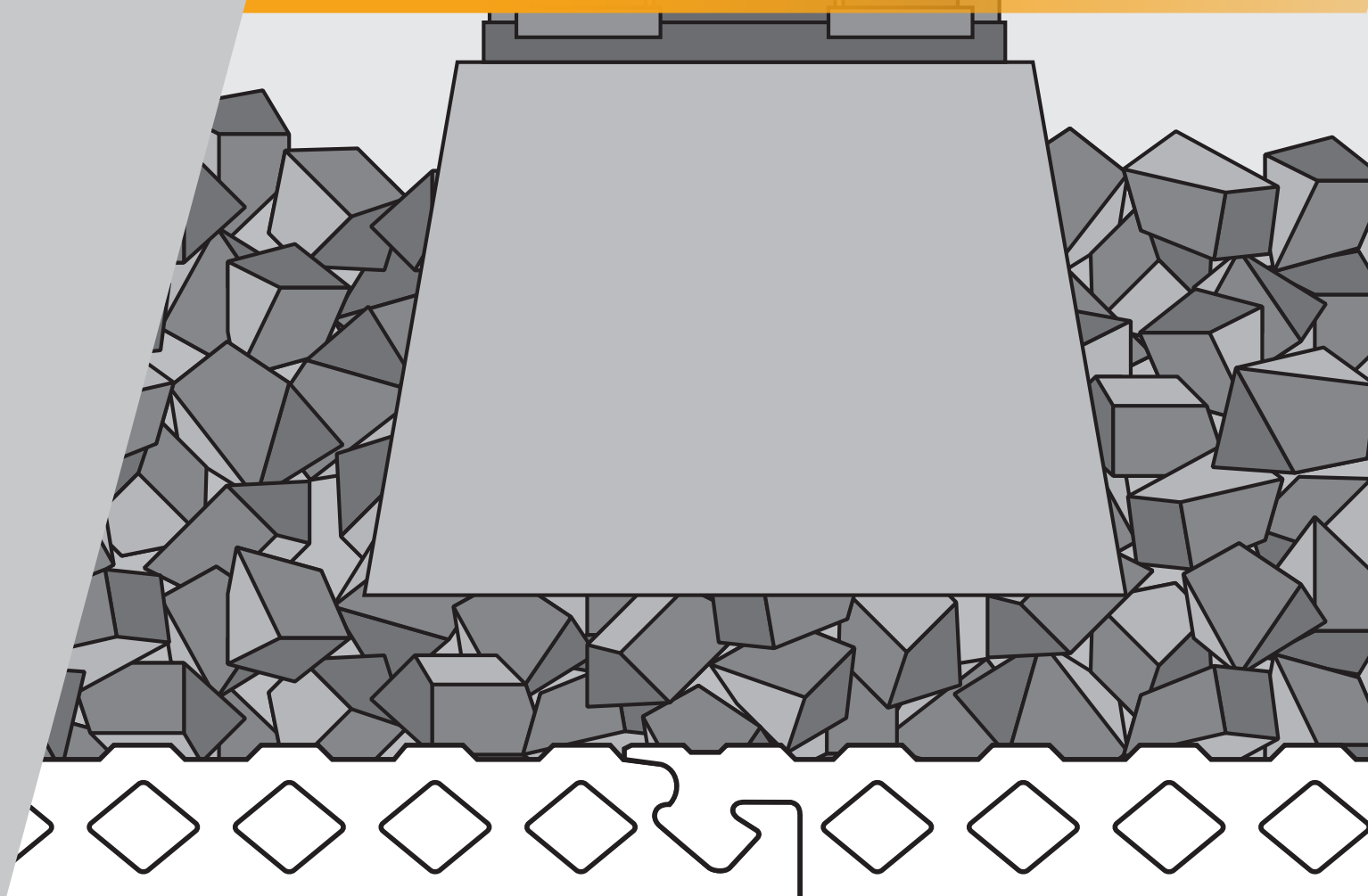


PHOENIX Dichtungstechnik GmbH

# Sub Ballast Mats

Installation instructions



# Installation instructions for PHOENIX Sub Ballast Mats

## DELIVERY CONDITION OF SUB BALLAST MATS

- / In rolls on pallets 2-layers thick, delivered in variable length - preferably lengths of 10 m
- / Loose rolls stored without pallets directly into trucks or containers

## UNLOADING AND STORAGE

- / Rolls on pallets: use forklift truck
- / Loose rolls: use special unloading equipment
- / Unloading and storage next to job site, protected from the effects of weather and soiling, covered with plastic sheeting

- / If time of storage > 1 week, the mats must be covered by special opaque plastic sheeting.

## TOOLS AND SPECIAL EQUIPMENT

- / Hammer for closing the tie-ups
- / Serrated knife for cutting the mats
- / Drill for drainage holes etc.
- / Drill (min.1000 Watt, chuck min.13 mm)
- / Mixing equipment for the 2-component PU adhesive
- / Hammer drill for the pins used to attach the side mat.

- / Burner for drying the adhesive surfaces
- / Brushes for the green soap used as lubricant for joining, drilling and cutting

For application of the adhesive:

- / Spreader for the PU adhesive. This to cover the base area.
- / Solvent-proof roller for gluing the side mats

## CROSS SECTION OF BALLAST MAT



## DIMENSIONS OF THE MATS

Total width: 650 mm  
Working width: 625 mm  
Thickness: 12 to 25 mm

## DRAINAGE HOLES FOR DRAINAGE OF SURFACE WATER

Drainage holes can be made by use of a trepanning tool. The drainage system must be covered by geotextile to ensure permanent function of the system.



with the aid of a trepanning tool and liquid soap as lubricant



with prefabricated insert parts

## INSTALLATION DIRECTION AND PREPARATION OF THE SUB-SOIL

The mats can be installed perpendicular or longitudinally to the track direction. The mats should always be installed with the ribbed side facing up. The sub-soil must be level, dry, compacted and well-swept.

## GLUING THE MATS

Ground mats: Partially bonded, approx. 25% of the area, (consumption approx. 350-500 g/m<sup>2</sup> depending on roughness and absorbency of sub-surface) with solvent-free PU glue.

Side mats: Fully bonded using the contact glue supplied.

### 1 CONNECTION OF THE MATS



Coating of the groove with a mixture of water and liquid green soap (1:1).



Linking 2 mats together with a rubber mallet.

### 2 BALLASTING AND DRIVING ON THE PHOENIX MATS



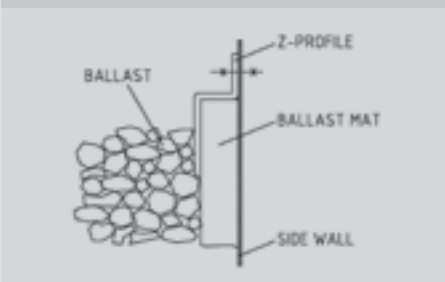
After placement of a 15 cm "spread as you go" ballast base layer the mats can be crossed by rubber-wheeled vehicles. The driving speed should be low, do not start or stop abruptly on the ballast or make steering movements when the vehicle is stationary.

#### NOTE

The method as set out hereunder should be considered as an example. It may vary depending on project requirements and local conditions. In addition to this product information, the installation instructions for sub ballast mats (latest valid version) of the German Railways (DB AG) must be adhered to. These can be provided on request.

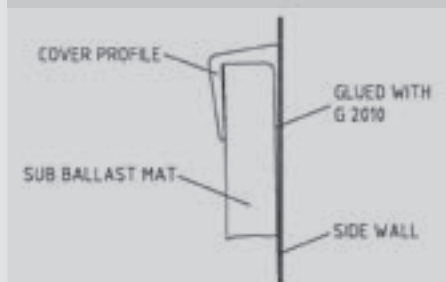
## COMPLETION OF SIDE MAT

### WITH Z-PROFILE



Z-profiles are made of plastic or hot galvanised steel and fixed with special nails

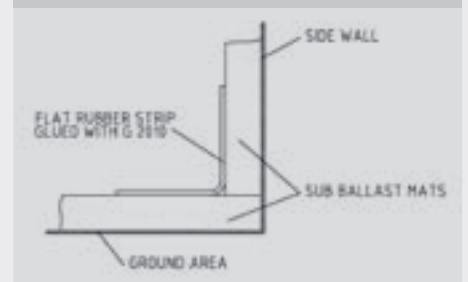
### WITH COVER-PROFILE



Non-flammable cover profiles for mechanical fixing or gluing to side walls can be supplied for all types of mats. The non-flammable cover profiles are made of rubber.

## CONNECTION AREA

### GROUND MAT/SIDEMAT



Corner areas are sealed with a flat rubber strip to prevent ingress of water and ballast.



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