

Ciprotec 3017

Under ballast mat for track systems

Application

Ciprotec is mainly used for ballast tracks on bridge decks, tunnel floors or similar. It helps to avoid ballast wear or protects coatings of concrete or steel structures. The mats fully cover the subfloor. They also provide highly effective reduction of vibrations and sound emissions caused by rail bound traffic. The various types of mats come in thicknesses from min. 13 mm and are designed for different axle loads, speeds and types of permanent way. Ciprotec guarantees effective attenuation of structure-borne noise and vibration in tunnels underneath buildings, track sections adjacent to buildings and bridges over structures. Ciprotec is suitable for main line railway-, metro-, underground-, light rail- or tram tracks.

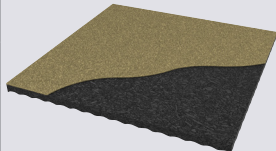
Description

Ciprotec is a black elastic mat made of PU bound rubber fibres, laminated on top with a geotextile layer of robustness class GRK 5. The lower side of type 3017 is profiled. The table below shows the main properties of the product.

Installation

Ciprotec is layed to a well-swept subfloor. Projecting concrete edges or similar, protruding reinforcement parts etc must be removed. Ciprotec shall be layed butt-jointed without gaps. In case several layers of Ciprotec are installed, the different layers shall be staggered. Longitudinal or transverse joints between single mats facing the ballast bed or a concrete slab track, shall be closed with a suitable covering strip or tape. The same applies to possible corner joints between floor- and side mats. If requested, the mat can also be glued in whole or in part to the surface of the subfloor.

Product data

PRODUCT PROPERTIES					
Item	Test Standard	Values	Dimensions and Weight	Values	
Tensile strength	ISO 37	0.2 N/mm ²	Length [m]	≈ 10	
Elongation at break	ISO 37	54 %	Width [mm]	≈ 1250	
Compression set test	DIN EN 17282 (7±1) days	$\Delta C_{stat} = + 8,8 \%$ $\Delta C_{dyn[5Hz]} = + 12,3 \%$	Thickness [mm]	≈ 18.5	
Ozone resistance	DIN ISO 1431-1	Crack Assessment 0	Weight [kg/m ²]	≈ 7.8	

EN 17282 up to 25 t axle load (track category TC 3)	
Static Bed Modulus C_{stat}	
Load Range [N/mm ²] applies to C_{stat} and C_{dyn}	Value ± 15 % [N/mm ³]
0.02 – 0.10	0.0304
Dynamic Bed Modulus C_{dyn}	
Frequency [Hz]	Value ± 15 % [N/mm ³]
5	0.0417
10	0.0464
20	0.0480

Tested at: TU Munich, MPA NRW and Müller-BBM.
Test reports are available on request.

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