

TECHNICAL DATA SHEET VIBRA HARD THICKNESS 15 MM − C_{Stat} ≥ 0.15 N/mm³

1. Application Sector

PROJEX DAMTEC[®] Vibra Hard Sub Ballast Mat (SBM) is an isolation and protection mat for railway track constructions. Stiffness's have been tested for tracks with typical axle loads of 30 tons and speeds below 200 km/h. It suits also for axle loads less than 25 tons and speeds higher than 200 km/h. Due to quite linear deflection line static stiffness is the same for different loads. 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. Material

Fine granules of recycled rubber and rubber foam with a PU elastomer bonding agent.

3. Appearance

Colour: anthracite

Surface: closed, smooth

4. Dimensions/Tolerances

Width: 1,250 mm ± 1.5 % Length: 1,000 mm ± 1.5 % Thickness: 15mm ± 1.0 mm

Area weight: approx. 9.75 kg/m² (slabs and other lengths are possible on request for special projects)



5. Installation

The installation has to be in accordance to installation instructions PROJEX DAMTEC® SBM.

For structure borne noise insulation and isolation of secondary airborne noise an adhesion is not necessary.

6. Test Data

Tensile strength: approx. 0.16 N/mm² (ISO 1798)
Elongation at break: approx. 60% (ISO 1798)
Burning behaviour: Efl (EN 13501-1)

Thermal resistance: - 30°C to + 80°C

Static bedding modulus (C_{stat1}): =0.15 N/mm³ ±0.15%

Static bedding modulus (C_{stat2}): <0.17 N/mm³

Dynamic bedding modulus (C_{dyn1}): 0.073 N/mm³ to 0.107 N/mm³

Static stiffness for different load ranges:

| Max. load | secant modulus between | | Cstat1 | secant modulus between | | Cstat2 |
|----------------------|------------------------|------|----------------------|------------------------|------|----------------------|
| [N/mm ²] | [N/mm ²] | | [N/mm ³] | [N/mm ²] | | [N/mm ³] |
| 0.15 | 0.02 | 0.06 | 0.155 | 0.02 | 0.12 | 0.167 |
| 0.20 | 0.02 | 0.08 | 0.157 | 0.02 | 0.16 | 0.167 |
| 0.25 | 0.02 | 0.10 | 0.152 | 0.02 | 0.20 | 0.156 |
| 0.35 | 0.02 | 0.14 | 0.152 | 0.02 | 0.28 | 0.160 |

7. Accessory

Projex SBM tape

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