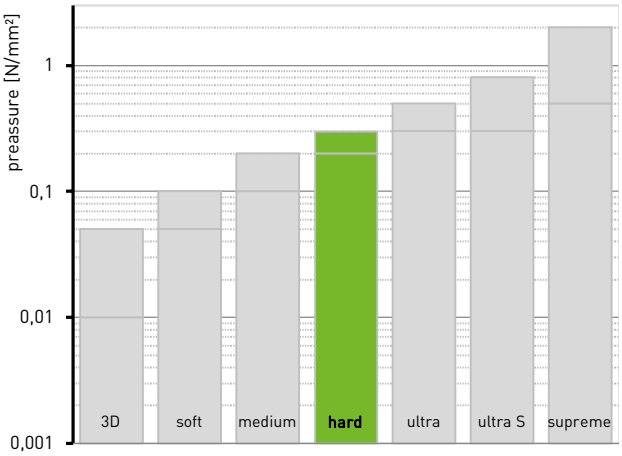
SPEBA® vibra hard
product sheet

SPEBA® DAMTEC® vibra hard is a mat of rubber granulates for the absorption of vibrations as well as for impact sound insulation. It has unique compression recovery capability and has exceptionally resilient characteristics. The ideal area of application is for a material pressing between 0.20N/mm² and 0.30N/mm².

Vibra series performance range



Material specification and values

Loads:	⩽ 0,30 N/mm² (Serviceability Limit State) ⩽ 1,00 N/mm² (Ultimate Limit State)	
Material:	Fine granules of rubber and rubber foam with a PU-elastomer bonding agent	
Colour:	black/anthracite or black/anthracite/multicolour	
Surface:	closed, smooth	
Delivery form:	Roll	(5 & 10 mm thickness)
	Plate	(10, 12.5, 15, 20 mm thickness)
Thickness:	5 mm 8 mm 10 mm 12.5 mm 15 mm 20 mm	
Length (Thickness):	Rolls:	8m (5mm) 6m (10mm)
	Plates:	1m (12.5mm 15mm 20mm)
Width:	1,25 m	(± 1,5%)

Nobody wants to be disturbed in their well-deserved rest by the noise of the stairs, loud washing machines, stereo systems, bathroom singing or vibrating machines next door. This is possible with the SPEBA® DAMTEC® vibra series, the elastic bedding made of polyurethane foam and recycled rubber granules, which enable soft and elastic bedding of all components. Whether foundations for heavy machinery, small staircases, large floor constructions or the insulation of an entire building - the ideal solution for every requirement: efficient, sustainable and durable.

properties	value		Test procedure
Tensil strength	0,60 N/mm²		ISO 1798
Elongation at break	30 - 70 %		ISO 1798
Thermal resistance	0,100 m²K/W 0,200 m²K/W	(t=10mm) (t=20mm)	EN 12667
Operating temperature	-30° to +80°C		
Reaction to fire	Efl		ISO 11925 / EN 13501-1
Dynamical stiffnes	0,06 – 0,85 N/mm³		DIN 53513
Natural frequency	32 to 10 Hz		
Compressive stress at 10%	>30 kPa		EN 826
Maximum pressure	≤ 0,30 N/mm² ≤ 1,00 N/mm²	SLS ULS	
Short peaks	Approx. 50% deflection at 0.70 N/mm²		
Density	0,60- 0,70 kg/l		

Installation shall be carried out in accordance with the SPEBA® DAMTEC® vibra installation instructions.

reduction of vibrations and oscillations

permanently elastic

outstanding compressive strength and load-bearing performance

very low emission; very environment-friendly,

convention centres

production halls

waterproofed and rot-proofed

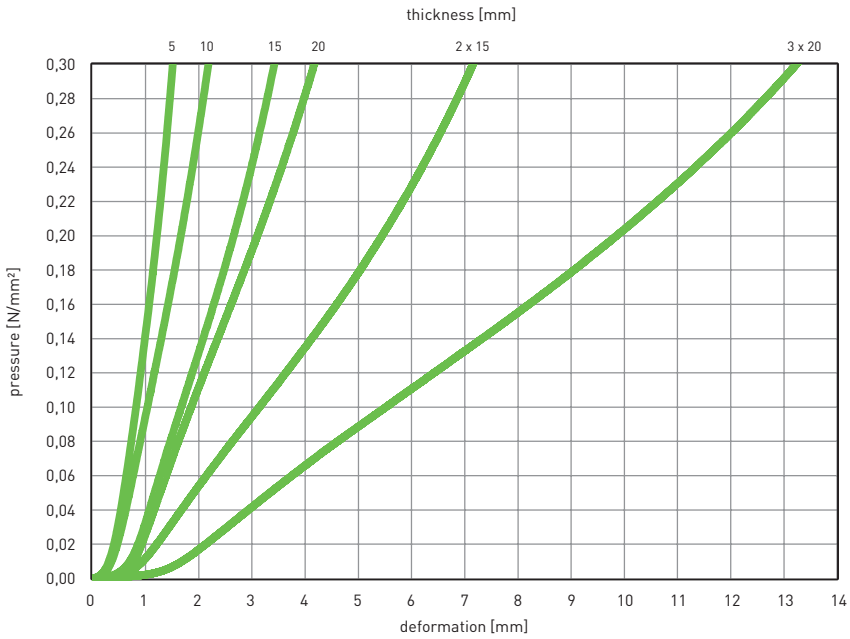
fast and easy installation

Made in Germany

hotels

apartments

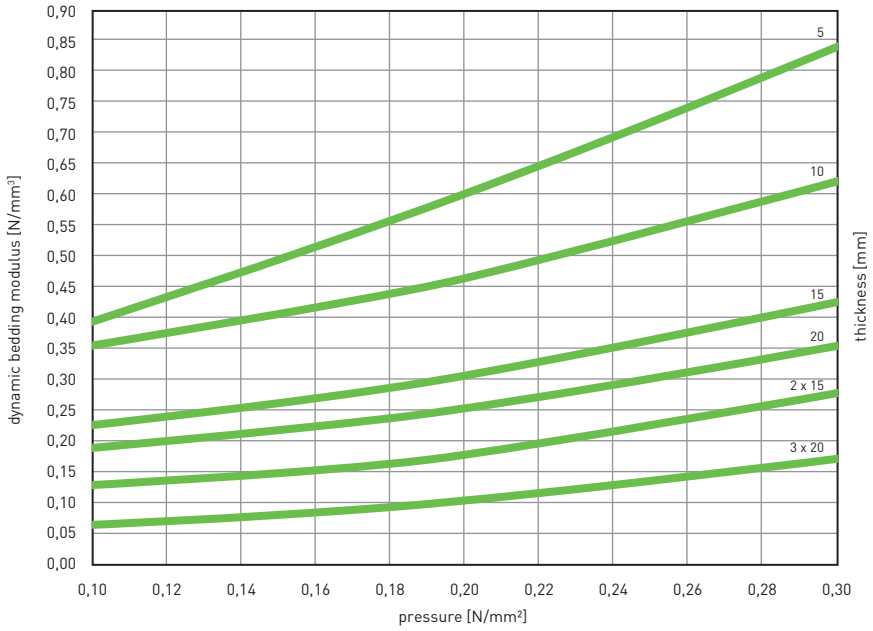
1. spring stiffness behaviour



The 3rd load was recorded in each case, testing at room temperature between flat steel plates. Test based on DIN EN 826:

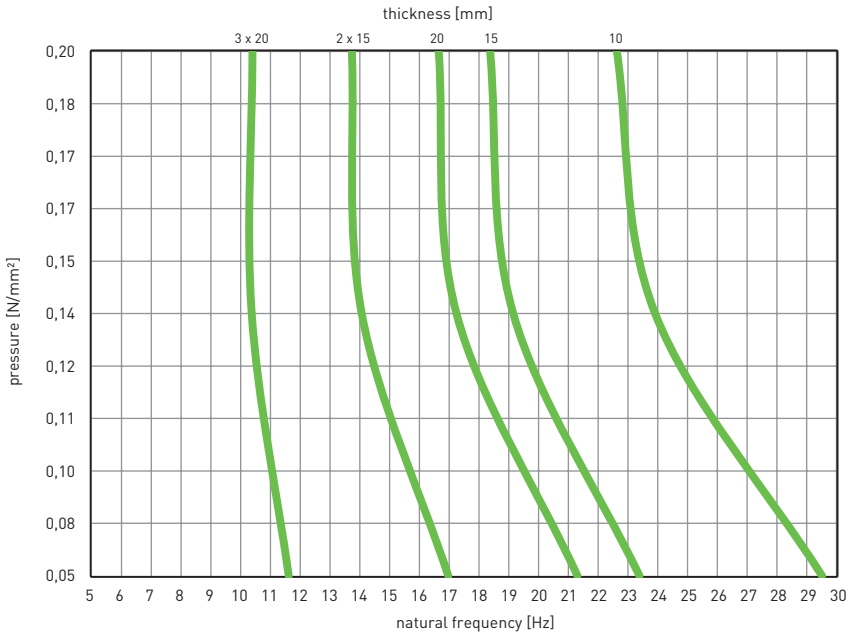
- Test speed v = 10 mm/min
- Sample dimension 300 x 300 mm

2. Dynamic bedding modulus



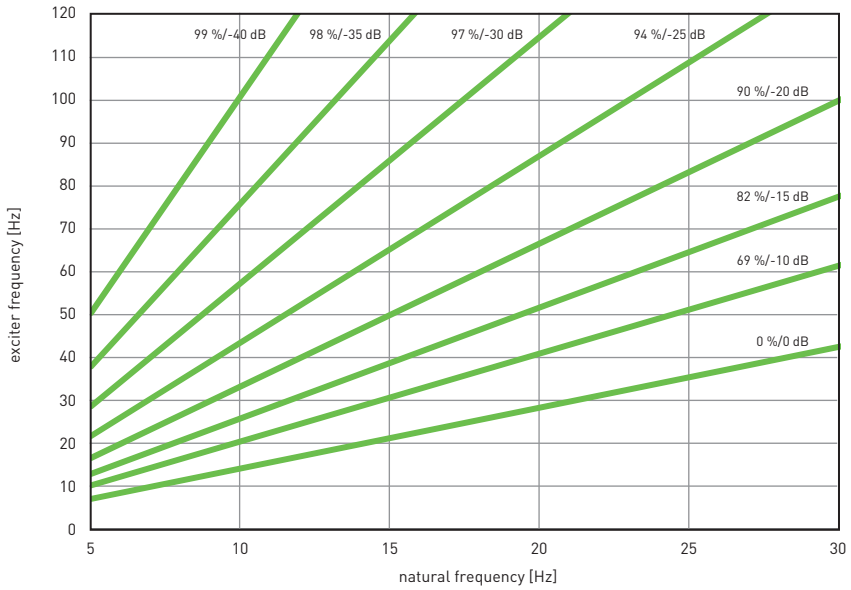
The Measurement based on DIN 53513:1990-03 dynamic test: harmonic excitation with an amplitude of ± 0.25 mm at 10 Hz. Sample dimension 300 x 300 mm

3. Natural frequency behaviour



The Natural frequency of the system consisting of a compact mass and an elastic bearing made of SPEBA® vibra hard on rigid Background: sample dimensions 300 x 300 mm. (mass spring system)

4. Vibration isolation

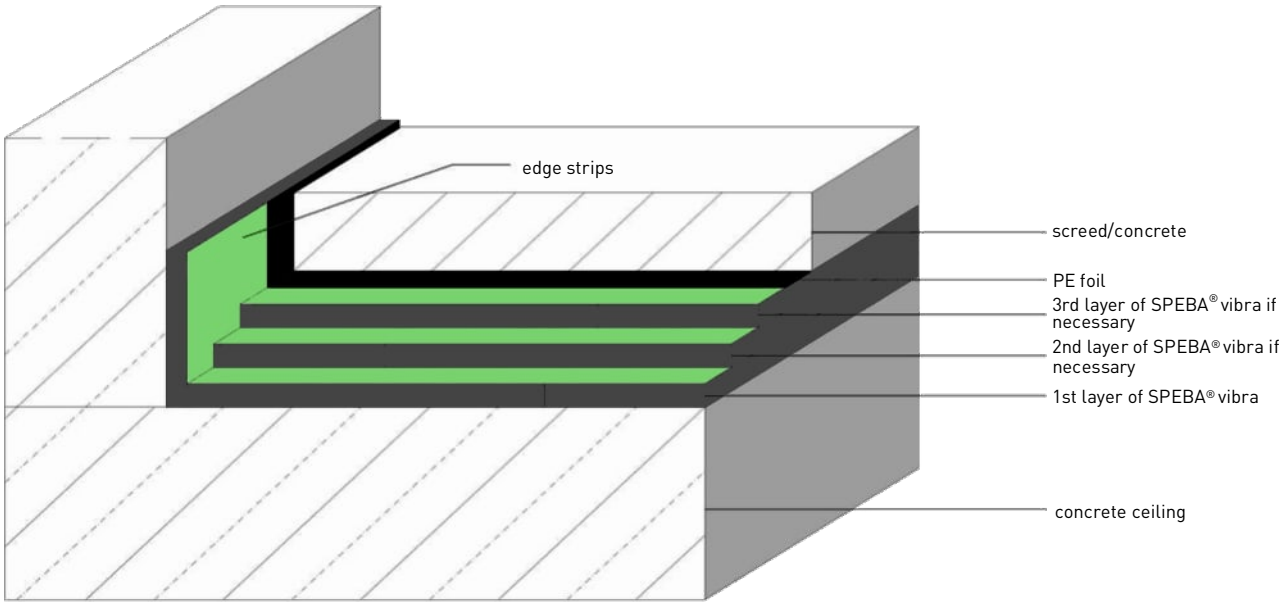


The Measurement based on DIN 53513:1990-03 dynamic test: harmonic excitation with an amplitude of ± 0.25 mm at 10 Hz. Sample dimension 300 x 300 mm

SPEBA® vibra hard
vibra installation instructions

Installation instructions

The existing base (concrete ceiling/pressure-resistant blinding layer) must be dry and swept clean before laying. Protruding tips and stones must be removed accordingly. The material easily adapts to slight bumps.
In the case of components with lateral decoupling, an edge strip must be laid before the horizontal elements are brought in for the further assembly to all rising components, such as walls, pipes, etc., in order to avoid structure-borne noise bridges. The edge insulation strip must be sufficiently dimensioned and stretched over the finished construction height.
The insulating underlay SPEBA® vibra is then rolled out or inserted as panels. The roll material may shrink somewhat due to internal stresses as a result of rolling. We therefore recommend laying out the insulating underlay over the entire surface and cutting it a little larger. The covering should relax and acclimate for a day (at least 24 hours).
The underlay can then be cut to the exact size. The tracks are to be butted. The joints should be taped over with adhesive tape to avoid sound bridges and to avoid displacement during the screed laying.
A PE foil is then laid and pulled up in front of the edge insulation strip to above the finished top covering height. The foil should be fixed to prevent shifting when the screed is installed.
To avoid structure-borne noise bridges, no screed or concrete must get into the insulating underlay. The screed or concrete can then be installed according to their product-specific specifications.



1. Lay edge strips to all rising components

2. Laying the first layer

3. Cut to size with box cutter

4. Butt the material

5. Laying the second layer (if necessary)

6. Laying the third layer (if necessary)

7. Cover the entire area with PE film and fix