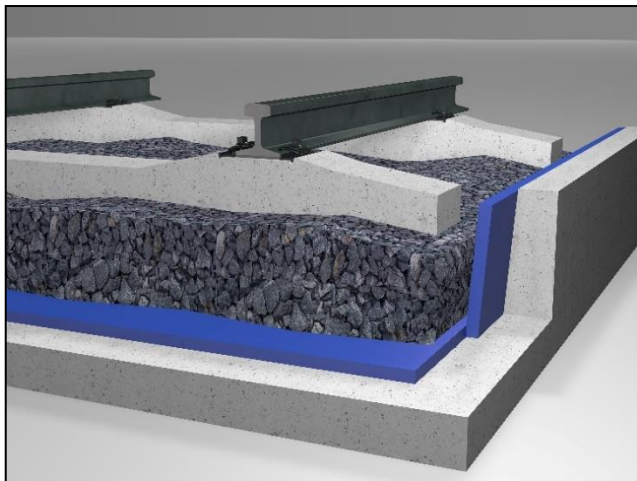


PURASYS SBM P 17-006 Sub Ballast Mat



PURASYS SBM P 17-006 is a decoupling and protection mat under track systems. It reduces structure-borne noise, secondary airborne noise and vibration emissions. In the case of ballasted track, the service life is extended by a lower and more uniform load. At the same time, it can protect engineering structures or sealings.

Characteristic values of the product:

Static modulus of bedding C_{stat}

0.06 N/mm³ (±20 %)

With medium ballast pressure $\sigma_1=0,02$ N/mm² to $\sigma_2=0,10$ N/mm²

Static modulus of bedding C_{stat}

0.04 N/mm³ (±20 %)

With high ballast pressure $\sigma_1 = 0,02$ N/mm² - $\sigma_2 = 0,20$ N/mm²

The measurement was made according to DIN 45673-5 as a secant module at the 3rd load cycle.

Fields of application:

Material:

Colour:

Main lines and heavy haul ≤400 kN
Mixed cell virgin polyurethane
Surface geotextile-laminated
blue/grey

Delivery specifications

Thickness:

Length:

Width:

Weight:

approx. 19 mm with geotextile
2000 mm
1000 mm
Approx. 6.8 kg/m²

Tolerances in accordance with DIN ISO 3302-1 M4.

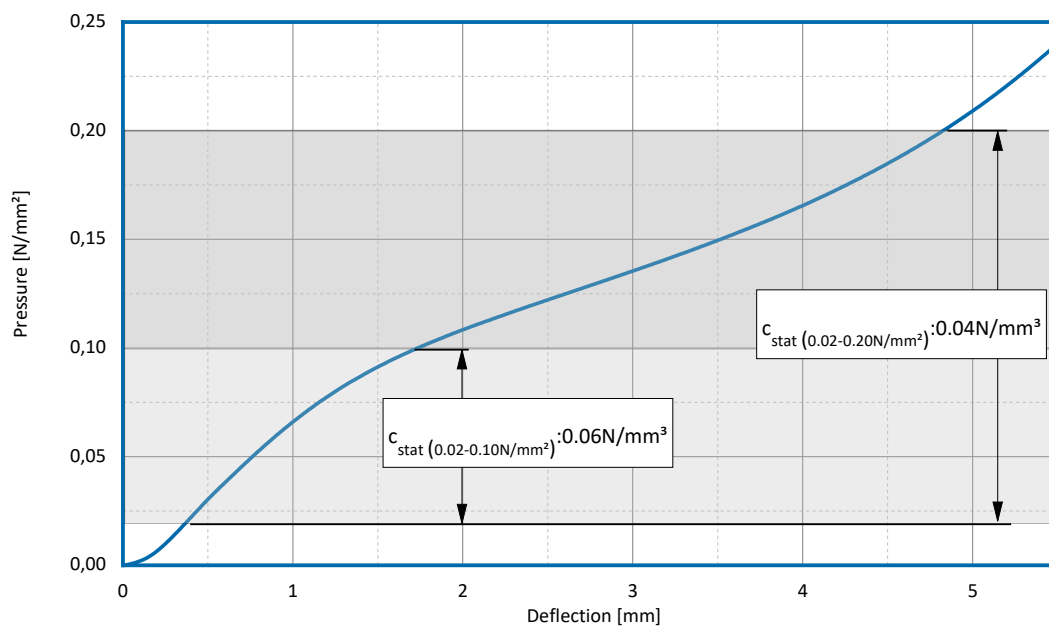
Properties	Values	Test method	Comment
Low frequency dynamic stiffening K_{dyn1}	1.73	DIN 45673-5	10 Hz
Mechanical loss factor (C_{dyn2})	0.12	DIN 45673-5*	Reference Value depends on frequency, preload and amplitude
Tensile strength	>0.75 N/mm ²	ISO 527*	minimum
Elongation at break	>150 %	ISO 527*	minimum
Mechanical fatigue resistance	<10 %	DIN 45673	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10 %
Specific volume resistance	>10 ¹¹ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.08 W/[m·K]	DIN 52612-1	± 20 %
Operating temperature	-30 bis +70 °C		
Temperature peak	+120 °C		
Inflammability	Class B2	DIN 4102-1	normal flammable
Ozone resistance	Free from cracks	DIN ISO 23529-23/50	
Freeze-Thaw resistance change of C_{dyn1} (10 Hz)	<10 %	DIN 45673-5*	
Water resistance	<10 %	DIN 45673-5*	Change in tensile strength
Oil- and grease resistance	<15 %	DIN 45673-5*	Change in tensile strength
Resistance to ageing	ΔC_{stat1} <8 %	DIN 45673-5*	
	$\Delta Mass$ <2 %		

(*) Measured values Kraiburg PuraSys in accordance with the respective standard

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

Static bedding modulus* C_{stat}
according to DIN 45673-5 between σ_1 and σ_2 :

σ_1	σ_2	C_{stat}	Comment
0.02 N/mm ²	0.07 N/mm ²	0.069 N/mm ³	±20 %
0.02 N/mm ²	0.10 N/mm ²	0.060 N/mm ³	
0.02 N/mm ²	0.20 N/mm ²	0.040 N/mm ³	



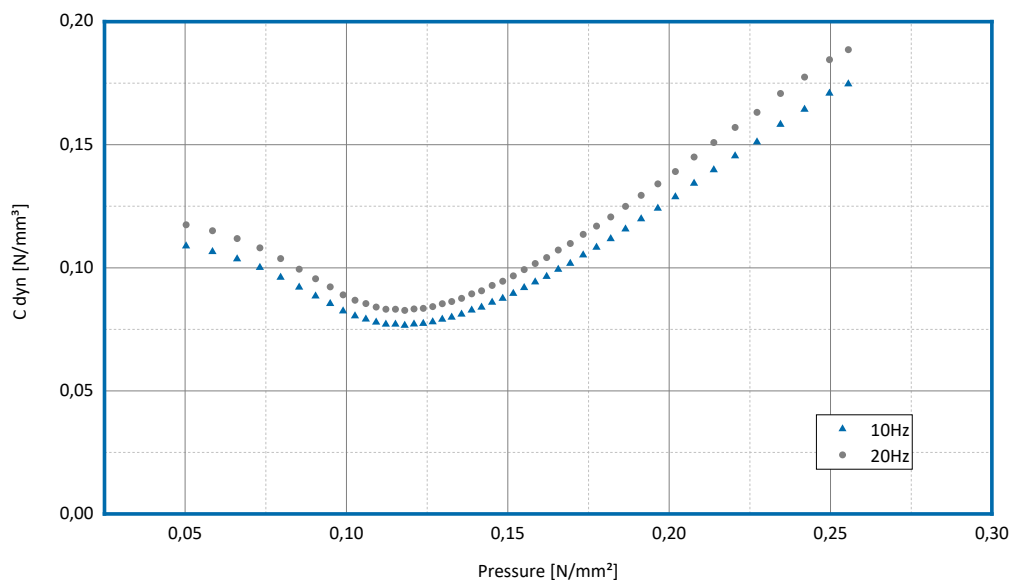
The third load was recorded, tested at room temperature between rough steel plates at a test speed of 0.01 N/mm²s.

Dynamic bedding modulus* C_{dyn1}			
Frequency	$\sigma_1:0.02-\sigma_2:0.07$ N/mm ²	$\sigma_1:0.02-\sigma_2:0.10$ N/mm ²	$\sigma_1:0.02-\sigma_2:0.20$ N/mm ²
5 Hz	0.105 N/mm ³	0.098 N/mm ³	0.060 N/mm ³
10 Hz	0.110 N/mm ³	0.104 N/mm ³	0.063 N/mm ³
20 Hz	0.116 N/mm ³	0.109 N/mm ³	0.069 N/mm ³

Measured with a harmonic excitation between σ_1 - σ_2 according DIN 45673-5:2010
(All values are subject to tolerance fluctuations of up to 20 %.)

C_{dyn2} according to DIN 45673*

for determining the structure-borne sound insulating effect as a function of pressure



Test according to DIN 45673-5 with an amplitude of 7 mm/s.

Static preload	Frequency	C_{dyn}
0.060 N/mm ²	5 Hz	0.099 N/mm ³
	10 Hz	0.105 N/mm ³
	20 Hz	0.113 N/mm ³
	30 Hz	0.122 N/mm ³
0.100 N/mm ²	5 Hz	0.076 N/mm ³
	10 Hz	0.081 N/mm ³
	20 Hz	0.087 N/mm ³
	30 Hz	0.093 N/mm ³
0.150 N/mm ²	5 Hz	0.082 N/mm ³
	10 Hz	0.088 N/mm ³
	20 Hz	0.095 N/mm ³
	30 Hz	0.103 N/mm ³

(All values are subject to tolerance fluctuations of up to 20 %.)