

## Product overview

# DYNAMIC ELASTOMERIC BEARINGS

VIBRATION ISOLATION AND REDUCTION OF STRUCTURE-BORNE NOISE

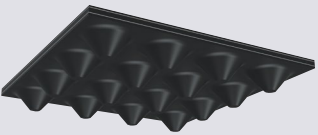
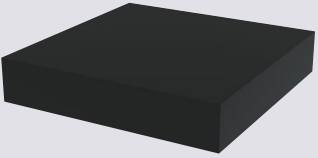
## Elastomeric bearings for protection against vibration and structure-borne noise

The isolating properties of elastomeric bearings are a tried-and-tested solution in all situations where buildings have to be protected against vibration emissions. Vibrating machinery and road or rail traffic can severely affect people in buildings. Bearings for machines and buildings can be punctiform, strip-shaped or planar.

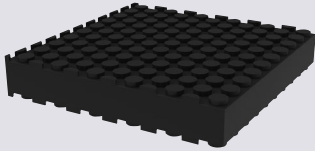

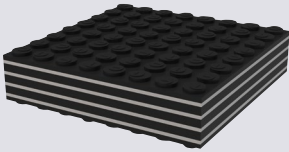
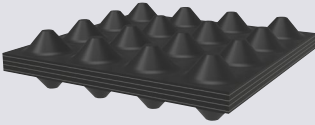
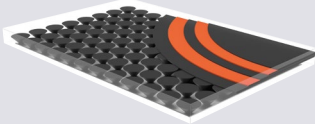
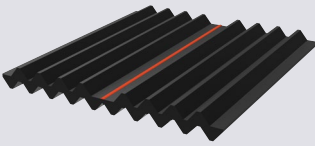
Calenberg elastomeric bearings are highly effective over a wide load range with almost constant low natural frequencies. In addition to the resulting vibration isolation, Calenberg's elastomeric bearings also feature material-based damping.

### Advantages

- Reduction of noise and vibration
- Decrease of air-borne and structure-borne noises
- Increased housing and working conditions
- Enhancement of the value of real estate through elastomeric support
- Maintenance-free
- Reduction of wear on components and machines

ELASTOMERIC BEARINGS FOR THE DYNAMIC SUPPORT OF BUILDINGS AND MACHINES			
Bearing type	Description, field of application	Bearing thickness [mm]	Technical data
Cibatur® 	The profiled mat consists of a fibre reinforced elastomeric plate with elastic, truncated cone-shaped studs on the underside. It possesses a constant natural frequency over a wide loading range. The top layer is not only resistant to abrasion, oil and ozone but also insensitive to weather. Very high quality natural rubber mix is used for the elastic studs. The bearing is particularly suitable for large areas under buildings. Approval no. Z-16.32-495, issued by DIBt Berlin	30	Load range: 0.02 – 0.5 N/mm <sup>2</sup>  Lowest natural frequency: 9.5 Hz single layer 7.0 Hz double-layer with intermediate plate
		63	Load peaks (occasional and short-term): ≤ 1,2 N/mm <sup>2</sup>
Cisador® 	Cisador® consists of closed-cell cellular rubber, which can also be used in groundwater. Cisador® is available in different types, which are used for different compressive stress ranges. The bearing can be used in all areas of vibration insulation. It can be used both for supporting buildings and for the classic decoupling of machines and foundations.	15 – 90	Load range: 0.01 – 1.7 N/mm <sup>2</sup>  Lowest natural frequency: 6 Hz

## ELASTOMERIC BEARINGS FOR THE DYNAMIC SUPPORT OF BUILDINGS AND MACHINES

Bearing type	Description, field of application	Bearing thickness [mm]	Technical data
Cipremont® 	A profiled heavy-duty unreinforced elastomeric bearing with little creep and constant natural frequency for a wide load range. The bearing is particularly suitable for support of machines and structures with high compression stress.	15	Load range: 0.5 – 4.0 N/mm <sup>2</sup>
		25	Lowest natural frequency: 8 Hz
		35	
Ciflex 	Ciflex consists of foamed polyurethane. There are different types which are used for different compressive stress ranges. The bearing can be used for the support of buildings as well as for the classical decoupling of machines and foundations.	12.5	Load range: 0.01 – 0.9 N/mm <sup>2</sup>
		25.0	Lowest natural frequency: 6 Hz
		50.0	
Citrigon® 	A heavy-duty steel-reinforced elastomeric bearing with low creep and low natural frequencies at very high loads. Citrigon® consists of NR, is temperature resistant from -30° C to +70° C, does not absorb water and is available in different thicknesses. The bearing is mainly used for high compressive stresses in the bearing of buildings on pile heads.	approx. 37 – 63	Load range: ≤ 15 N/mm <sup>2</sup>  Lowest natural frequency: 6 Hz
Cires® 	A highly elastic bearing, fibre-reinforced and profiled, for vibration isolation at low frequencies. The bearing is particularly suitable for support of ventilation systems or similar.	60	Standard dimensions: 250 mm x 250 mm
		125	Load range: 2 – 6 kN/element  Lowest natural frequency: 5 Hz
Cimax® 	The patented waterproof, encased bearing is a variant of the proven Cibatur® mat. Cimax® was developed specifically for use under water. The bearing is particularly suitable for support of structures below ground water level.	35	Load range: 0.02 – 0.5 N/mm <sup>2</sup>  Lowest natural frequency: 9 Hz einlagig
bi-Trapez Bearing® 	A high degree of vibration isolation and a high insulation index against structure-borne noise are achieved due to a low compression modulus for a load of up to 1 N/mm <sup>2</sup> . The bearing is particularly suitable for impact sound insulation in staircases.	10	Effective compression stress $\sigma_{\text{eff}}$ : 0.3 – 0.7 N/mm <sup>2</sup>
		15	Max. compression stress $\sigma_{\text{m,k}}$ : 1 N/mm <sup>2</sup>
		20	Impact sound improvement measure: 23 dB up to 28 dB



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