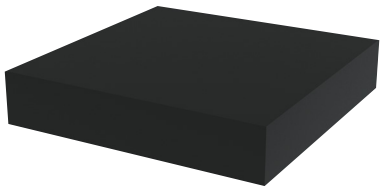
Cisador® 120

Elastomeric bearing for vibration isolation

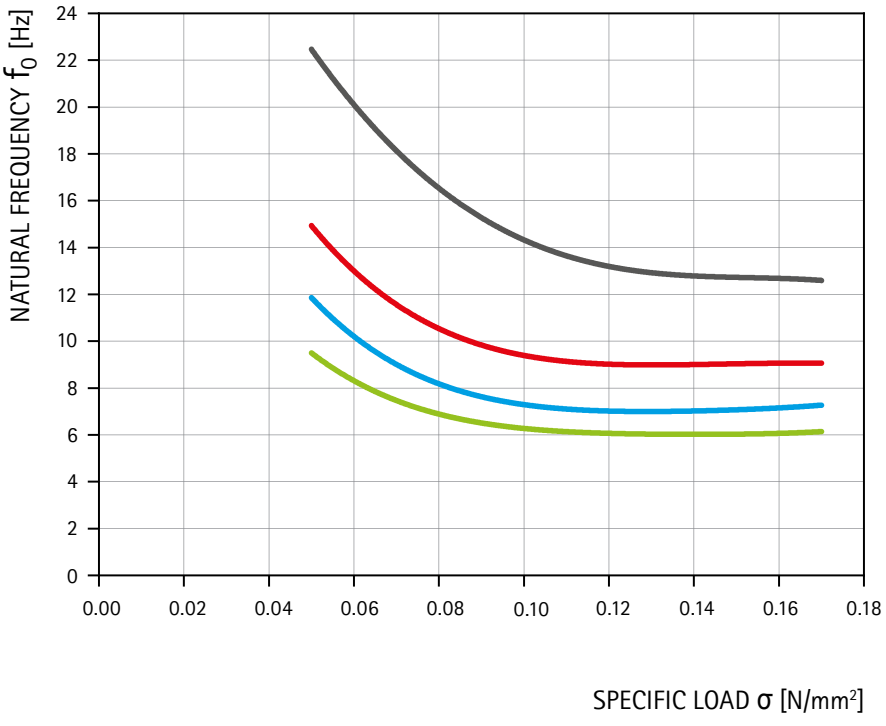
Product information

DIMENSIONS AND WEIGHTS	
Length	1000 mm
Width	750 mm
Thickness	15 mm
Weight	6 kg / m²
Cut to size	available on request



PROPERTIES	
Materials	Closed-cell, microcellular EPDM
Permanent load	≤ 0.12 N/mm²
Permanent load + dynamic load	≤ 0.20 N/mm²
Load peaks (occasional and short-term)	≤ 1.00 N/mm²
Thermal stability	-40°C + 100°C
Flammability	B2 acc. to DIN 4102 (normally combustible)
Water absorption	< 2 %

Natural frequency



NATURAL FREQUENCY CURVE

The figure shows the natural frequency of a single-degree-oscillator with Cisador® 120 as an elastic bearing for an excitation with a velocity amplitude of 1 mm/s.

- t = 15 mm
- t = 30 mm
- t = 45 mm
- t = 60 mm

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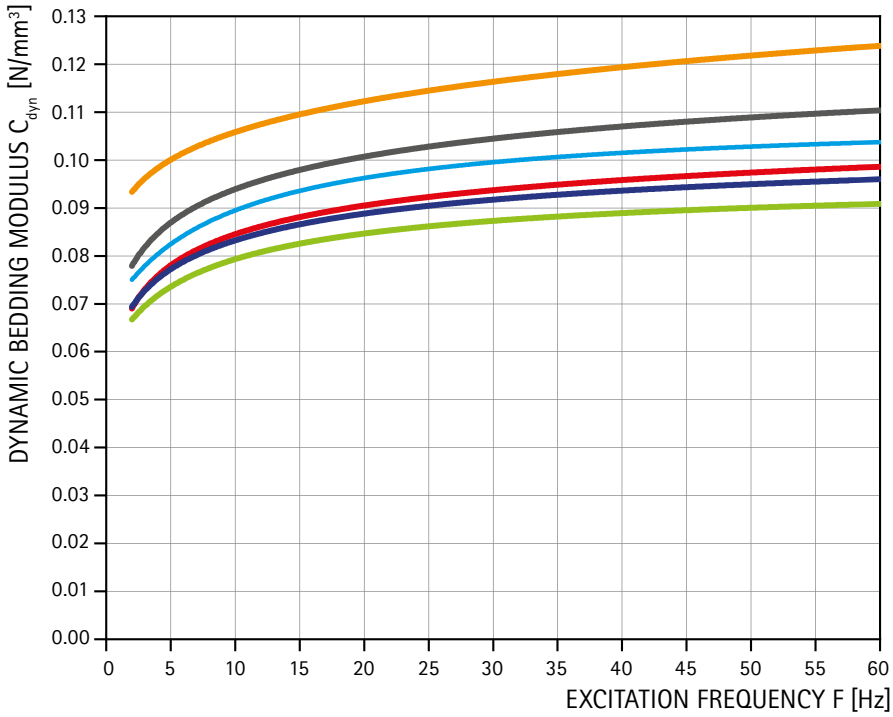
Dynamic bedding modulus depending on the excitation frequency (15 mm)

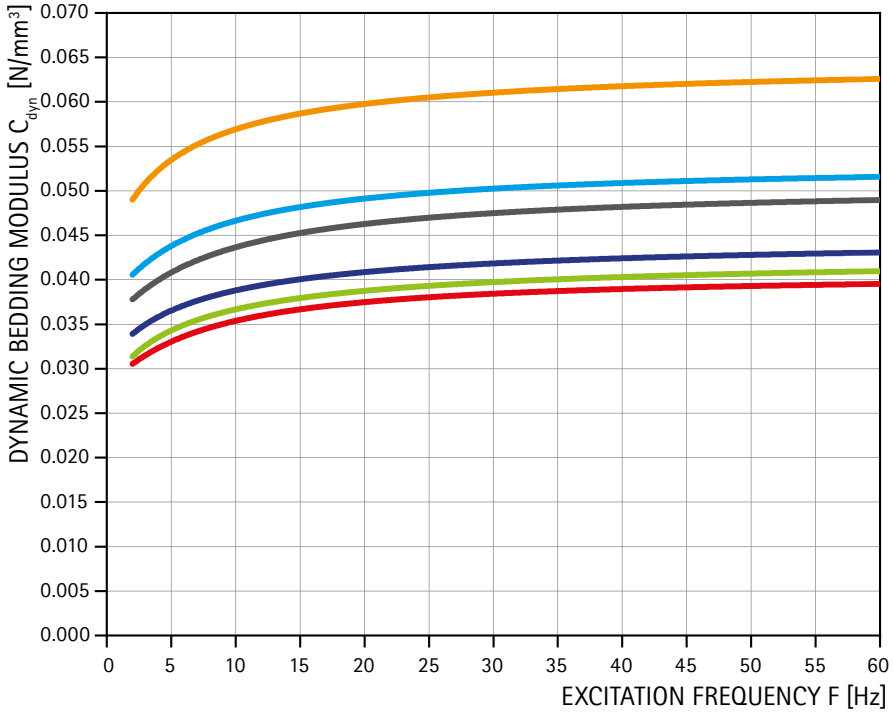


BEDDING MODULUS CURVES

The figures shows the dynamic bedding moduli for an excitation with a velocity amplitude of 1 mm/s and for different vertical compressive stresses.

- 0.05 N/mm²
- 0.08 N/mm²
- 0.10 N/mm²
- 0.12 N/mm²
- 0.14 N/mm²
- 0.17 N/mm²

Dynamic bedding modulus depending on the excitation frequency (30 mm)



- 0.05 N/mm²
- 0.08 N/mm²
- 0.10 N/mm²
- 0.12 N/mm²
- 0.14 N/mm²
- 0.17 N/mm²

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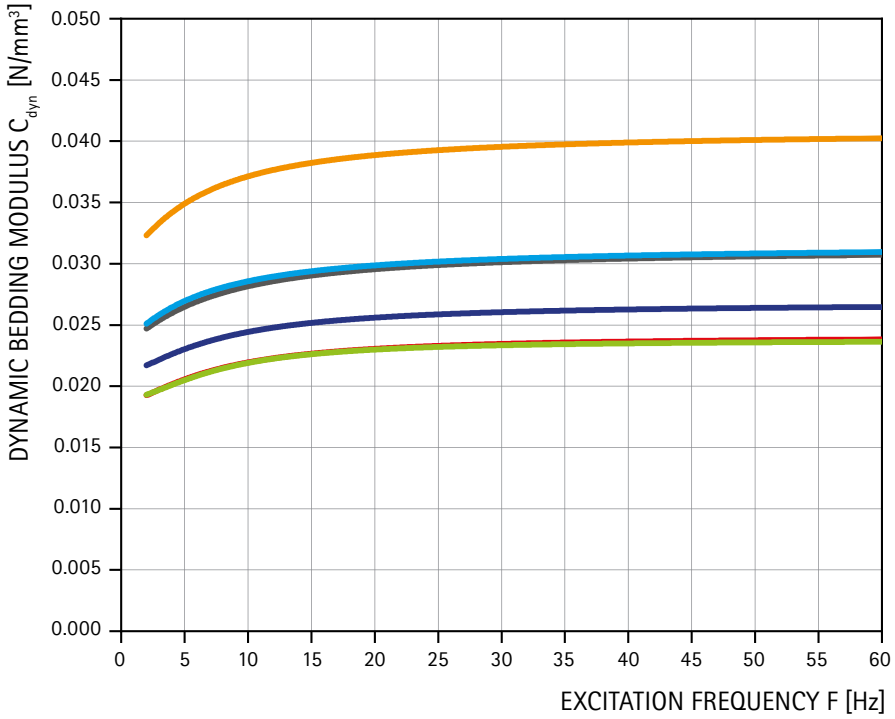
Dynamic bedding modulus depending on the excitation frequency (45 mm)

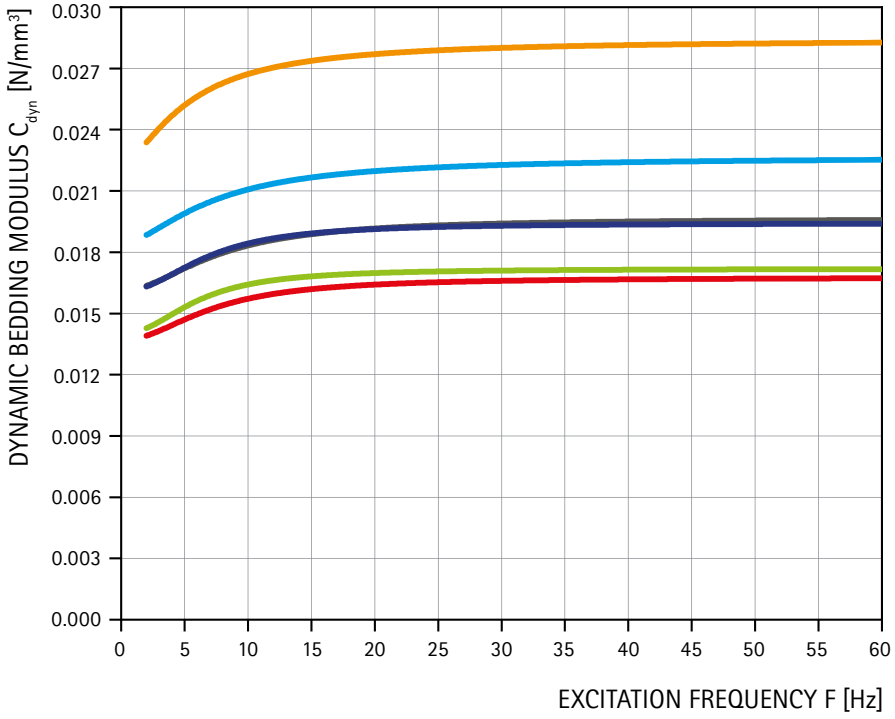


BEDDING MODULUS CURVES

The figures shows the dynamic bedding moduli for an excitation with a velocity amplitude of 1 mm/s and for different vertical compressive stresses.

- 0.05 N/mm²
- 0.08 N/mm²
- 0.10 N/mm²
- 0.12 N/mm²
- 0.14 N/mm²
- 0.17 N/mm²

Dynamic bedding modulus depending on the excitation frequency (60 mm)



- 0.05 N/mm²
- 0.08 N/mm²
- 0.10 N/mm²
- 0.12 N/mm²
- 0.14 N/mm²
- 0.17 N/mm²

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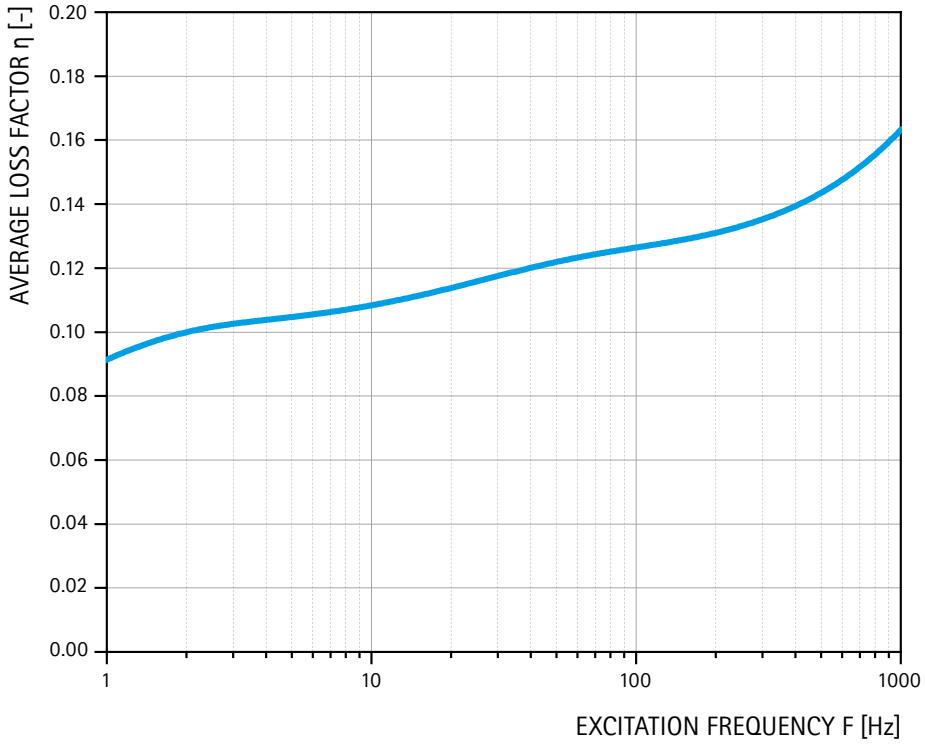
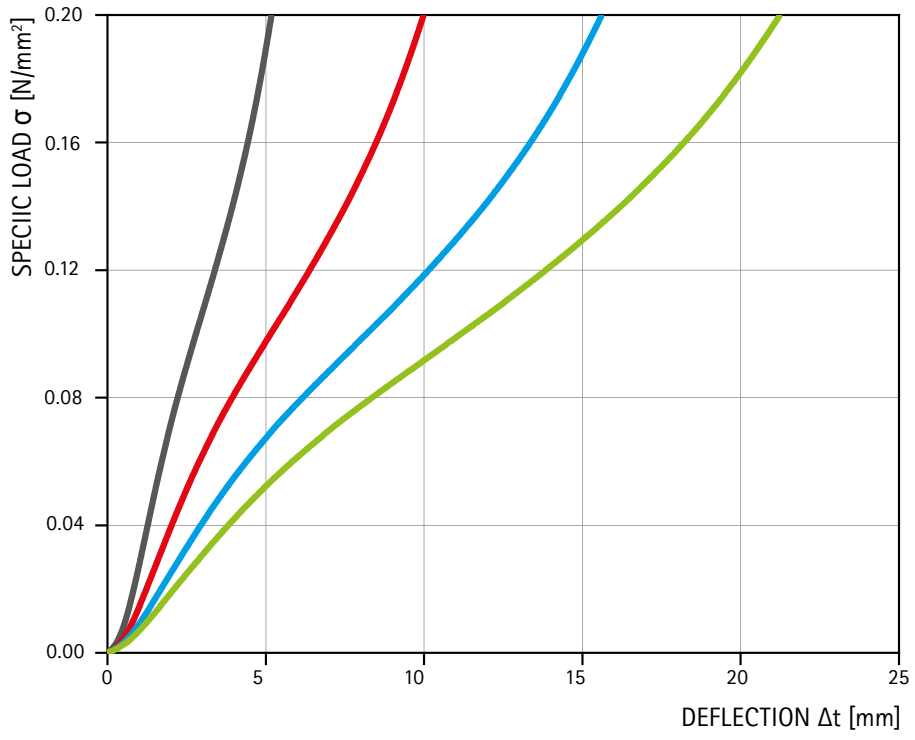
Loss factor



LOSS FACTOR CURVE

The loss factor is a measure of the energy loss per cycle in an oscillating system. The values shown in the diagram were determined by a DMA analysis using the WLF master curve method with a reference temperature of 20°C in order to be able to represent as wide a frequency range as possible.

Load deflection



LOAD DEFLECTION CURVE

Application of uniaxial pressure against vertical deformation.

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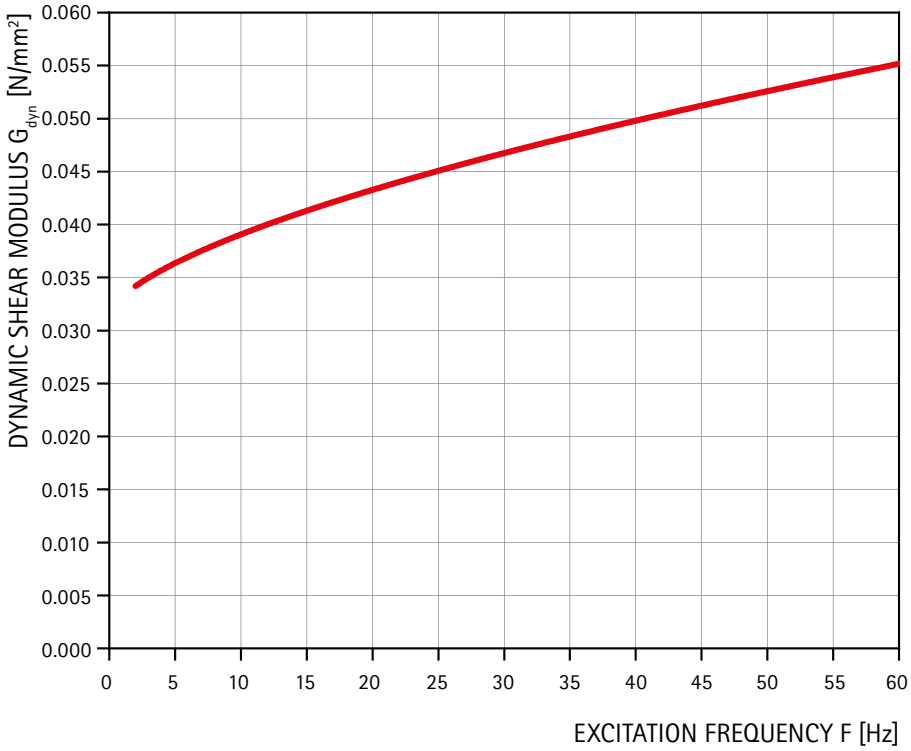
Shear modulus



SHEAR MODULUS CURVE

The diagram shows the shear modulus of the 15 mm thick Cisador® 120 at a vibration velocity amplitude of 1 mm/s as a function of frequency. For greater thicknesses, the shear modulus tends to be lower.

The contents of this publication are the result of many years of research and experience gained in the application of this technology. All information is given in good faith; it does not represent a guarantee with respect to characteristics and does not exempt the user from testing the suitability of products and from ascertaining that the industrial property rights of third parties are not violated. No liability whatsoever will be accepted for damage – regardless of its nature and its legal basis – arising from advice given in this publication. We reserve the right to make technical modifications in the course of product development.

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