BUILDING
COMMON GROUND

MAX FRANK®

Egcodist

Wall and floor bearings

Edition International

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COMMON GROUND

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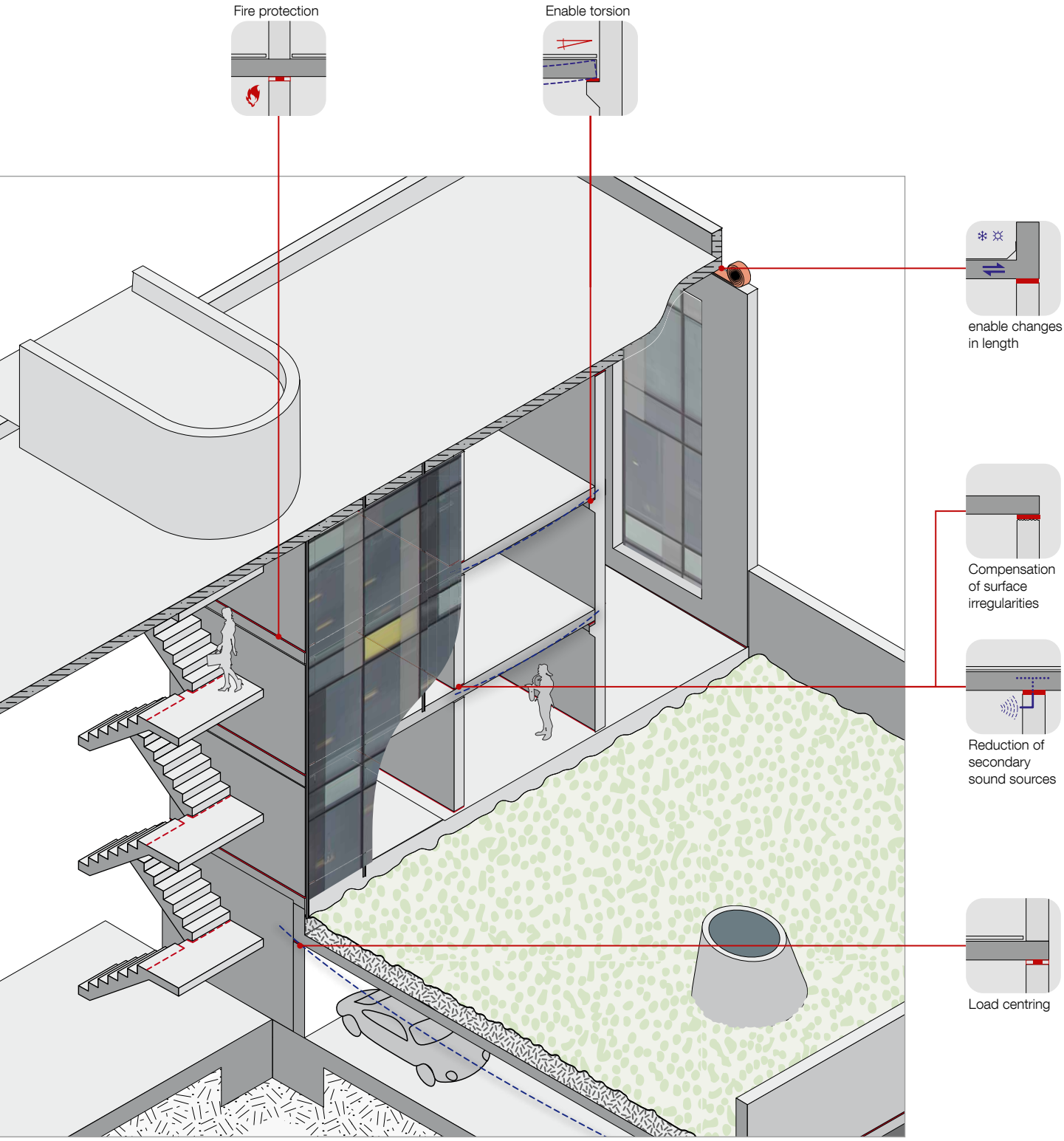
Wall and floor bearings

Contents


Fire protection
Enable torsion
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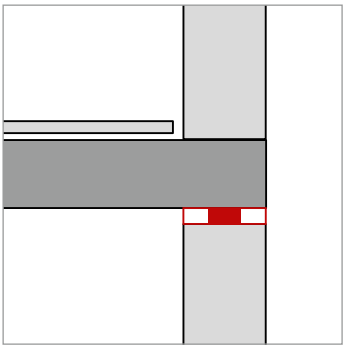
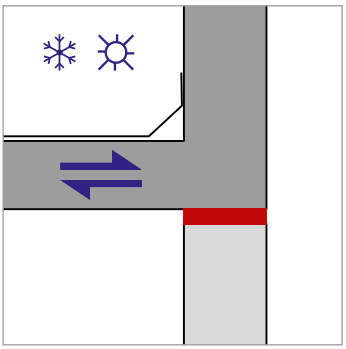
Load centring

The increasing use of plain stones in masonry construction on the one hand and the ever-expanding floor span on the other hand require more work in detail and execution of the connection at the top and bottom of the masonry structure increasing costs. With the centering of loads on the head of the masonry, this detailed point is catered for easily and efficiently. The **Egcodist C** line bearing with its various designs is especially suitable for this purpose.



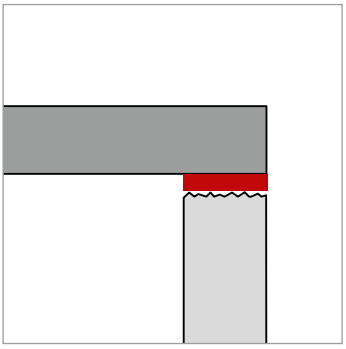
Enable changes in length

To enable changes in length, the use of **Egcodist CG** slide bearings is recommended. The main application of the bearings is to accommodate movements induced by expansion/contraction between connected structural members.



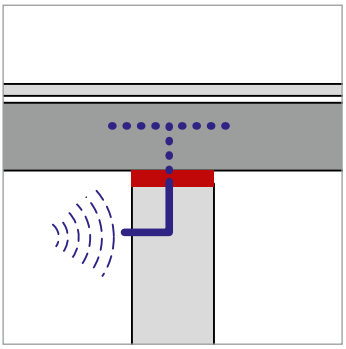
Compensation of surface irregularities

Construction related surface irregularities or contamination of contact joints can cause localised pressure points. The direct result are cracks and spallings. Damage can be prevented effectively by using a deformable bearing.



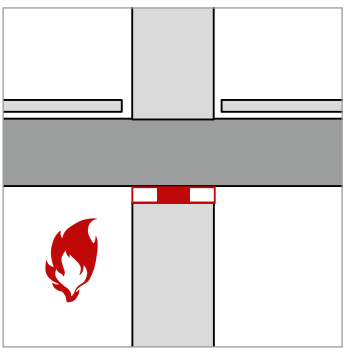
Reduction of secondary sound sources

Decoupling of solid wall and floor members helps to reduce the effects of secondary sound sources. This improves considerably the levels of comfort for the users of the building.



Fire protection

Where specific fire-protection requirements must be met, Egcodist line bearings can be provided with a fire-protection collar with an F90 fire-resistance rating. An expert statement for **Egcodist C R90** from MPA Braunschweig is available upon request.



Improve the quality of your buildings!

Take advantage of wall and ceiling bearings and avoid possible structural damage already during planning or construction phases.

Defined load centring helps to prevent spalling caused by rotation of the floor support. This means a permanently intact floor to wall joint giving the builder, owner and building user enhanced security. An application where the load is centred is good for masonry walls making it possible to use reduced wall thicknesses to achieve larger open floor spaces.

Direct exposure of rigid connections between floors and masonry walls to the elements will often result in damage in the joint area between wall and floor. It is a requirement of several national standards that an intermediate layer must be fitted in the joint that absorbs such deformations. The Egcodist range of wall and floor bearings is ideally suited to meet these requirements. To compensate small changes in length the bearing Egcodist C is sufficient. For the compensation of larger changes in length the use of Egcodist CG is recommended.

Even very small irregularities can lead to extensive localised pressure points. As a result of horizontal deformation being impeded, restoring forces are built up. The use of an elastic intermediate layer helps to reduce horizontal reactive forces and to distribute localised pressure.

Use the product overview for easy and quick selection of the optimum suitable bearing for your application.

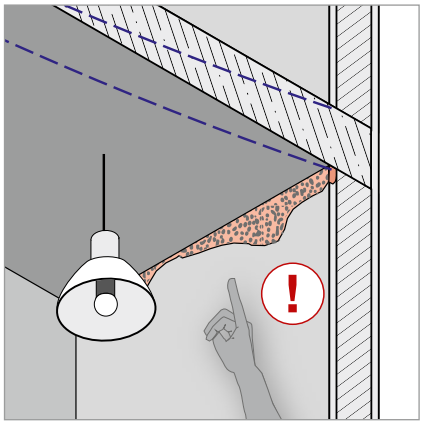
Select the suitable wall and floor bearing for your requirements.
Combine types, bearing thicknesses, bearing widths and admissible loads.

Example: **Egcodist CG 05/115/140**

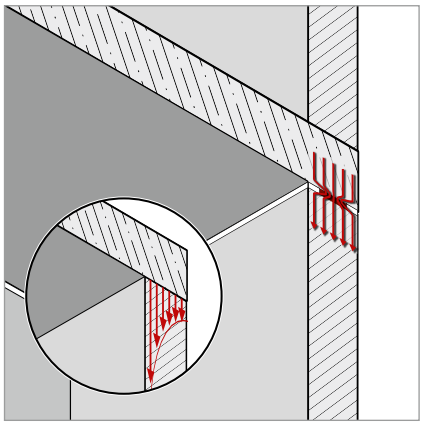
Type	Bearing thickness [mm]	Bearing width [mm]	Load [kN/m]	Fire resistance class
C	10	115	105	
		175	140	
	5	240	210	
CG	10	**115**	105	
		175	**140**	
	5	240	210	
C R90	10	175	140	R90
		240	210	

Egcodist code for the elastomer bearing

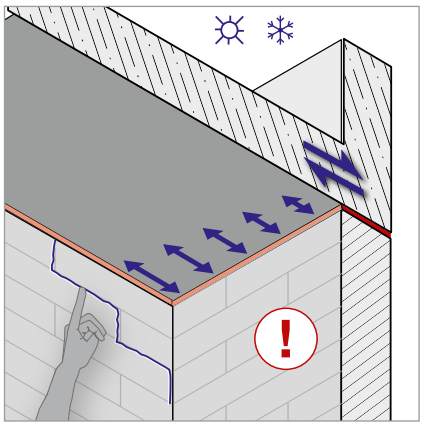
C	Centring bearing
CG	Centring bearing with permanent sliding function
C R90	Centring bearing with fire protection



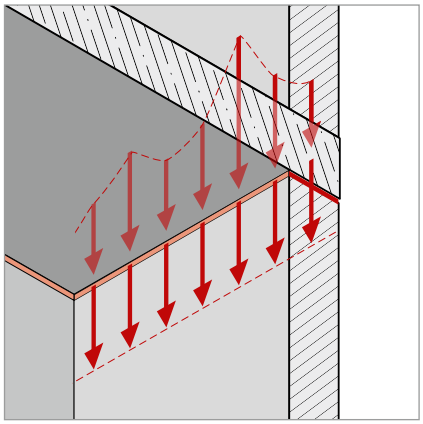
Spalling



Load centring

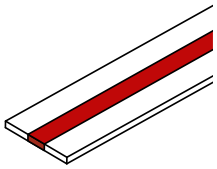
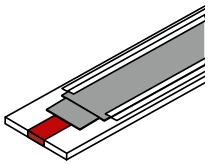
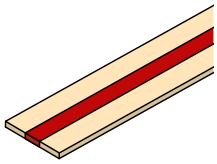


Changes in length



Compensating for surface irregularities

Product overview

	 Egcodist C	 Egcodist CG	 Egcodist C R90
	⊕	⊕	⊕
	◯ (± 2 mm/± 4.8 mm)	⊕	◯
	⊕	⊕	⊕
dB	⊕ (for 10 mm bearing thickness)	⊕ (for 10 mm bearing thickness)	◯
	◯	◯	⊕

Precast floors

	⊕	⊕	⊕
	⊕	⊕	⊕
	⊕	⊕	⊕

In-situ cast floors (incl. floor slabs)

	⊕	⊕	⊕
	⊕	⊕	⊕
	⊕	⊕	⊕

⊕ Suitable ◯ Conditionally suitable ⊖ Not suitable

In-situ concrete

Precast (incl. floor slabs)

Masonry

Egcodist C

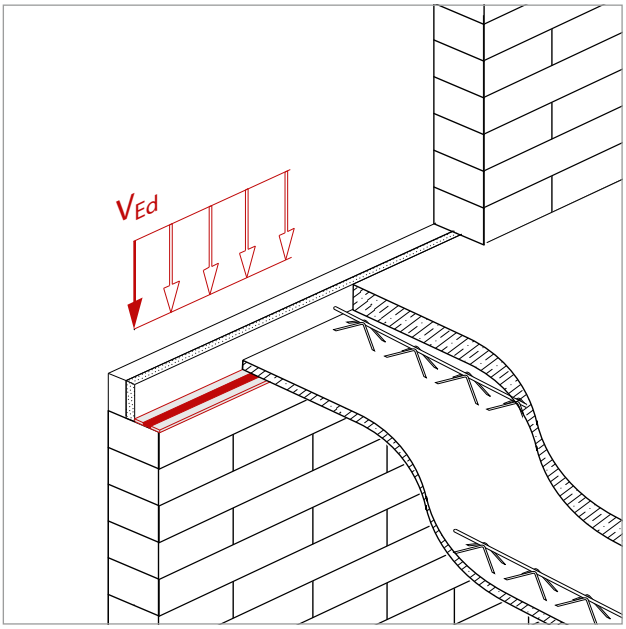
Centring bearing with limited horizontal deformability

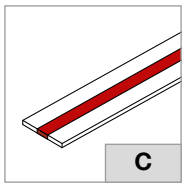
Egcodist C helps to prevent spalling at support points with large floor rotation angles and increases the bearing capacity of masonry walling through centred load application. The centring bearing is ideal for large floor spans and high walls.

- Test certificate by the MPA Hannover (fundamental test of bearings according to DIN 4141, part 3)
- Bearing class 2 in regard to DIN 4141, part 3
- Reduction of secondary sound sources

Delivery form

- Bearing thickness: 5 and 10 mm
- Standard width: 115, 175 and 240 mm
- Standard length 1.000 mm
- Customised designs can be produced upon request





Egcodist C

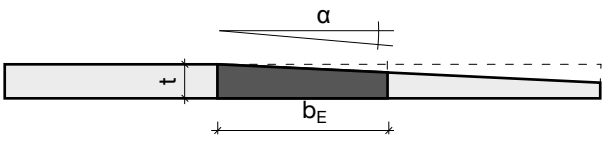
Load centring

Compensation for irregularities

Reduction of secondary sound sources

Bearing thickness	Bearing width	Core strip width	Design resistance line load	Characteristic resistance line load	Permissible horizontal movement	Maximum angle of rotation
t [mm]	$b_{Bearing}$ [mm]	b_E [mm]	$V_{R,d}$ [kN/m]	$V_{R,k}$ [kN/m]	Δx [mm]	α [°]
10	115	40	140	200	± 4.8	5
	175					
	240					
	115	50	210	250	± 4.8	4
	175					
	240					
5	115	25	105	125	± 2.0	4
	175					
	240					
	115	50	210	250	± 2.0	2
	175					
	240					

Angle of rotation

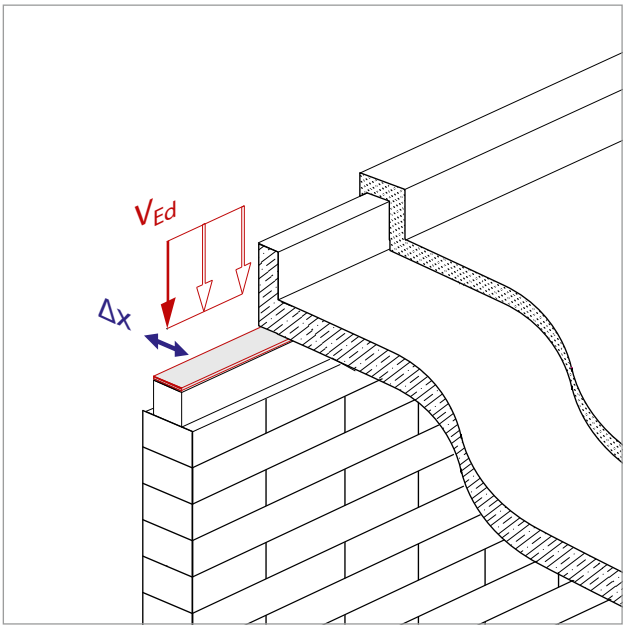


Egcodist CG

Centring bearing with permanent sliding function

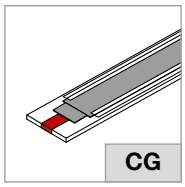
Egcodist CG helps to effectively prevent shear cracks developing due to expansion/contraction of the floor, e.g. as caused by exposure to direct sunlight. Egcodist CG also helps to prevent potential spalling at support points due to large floor rotation angles, whilst the centred load application increases the bearing capacity of masonry walling. Egcodist CG is ideal for uninsulated floors with large spans and high walls.

- Test certificate by the MPA Hannover (fundamental test of bearings according to DIN 4141, part 3)
- Bearing class 2 in regard to DIN 4141, part 3
- Reduction of secondary sound sources
- Friction coefficient μ ~ 0.1



Delivery form

- Bearing thickness: 5 and 10 mm
- Standard width: 115, 175 and 240 mm
- Standard length 1.000 mm
- Customised designs can be produced upon request



Egcodist CG

Load centring

Compensation for changes in length up to maximum 16 mm

Compensation for irregularities

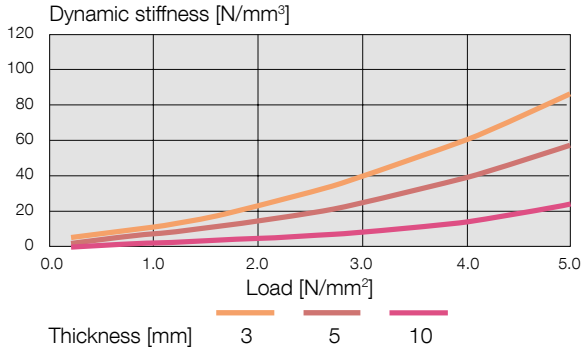
Reduction of secondary sound sources

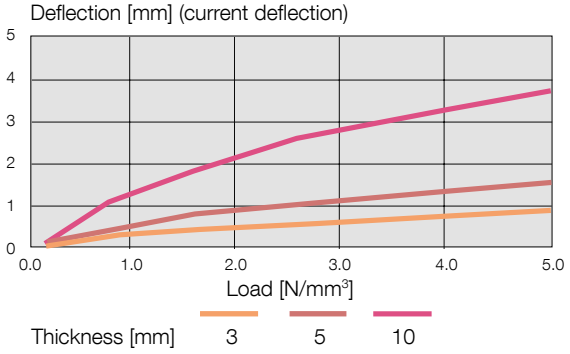
Bearing thickness	Bearing width	Core strip	Design resistance line load	Characteristic resistance line load	Permissible horizontal movement	Maximum angle of rotation
t [mm]	$b_{Bearing}$ [mm]	b_E [mm]	$V_{R,d}$ [kN/m]	$V_{R,k}$ [kN/m]	$\Delta x^{1)}$ [mm]	α [°]
10	115	40	140	200	± 13.0	5
	175					
	240					
	115	50	210	250	± 16.0	4
	175					
	240					
5	115	25	105	125	± 8.0	4
	175					
	240					
	115	50	210	250	± 16.0	2
	175					
	240					

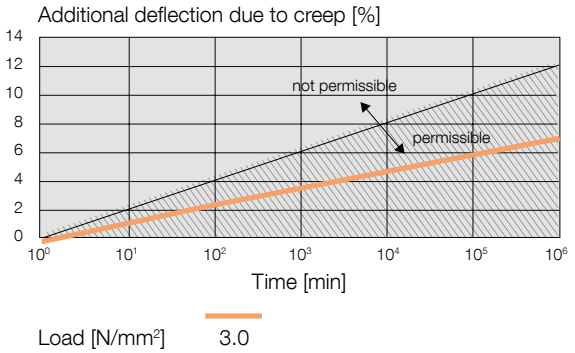
[1)] ~ max. 1/3 of the core strip width

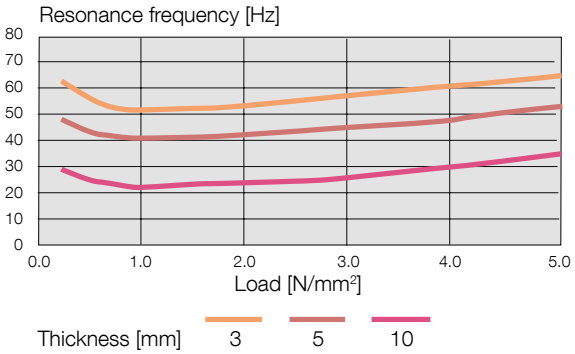
Core strip of the bearings Egcodist C and CG – Technical data bearing

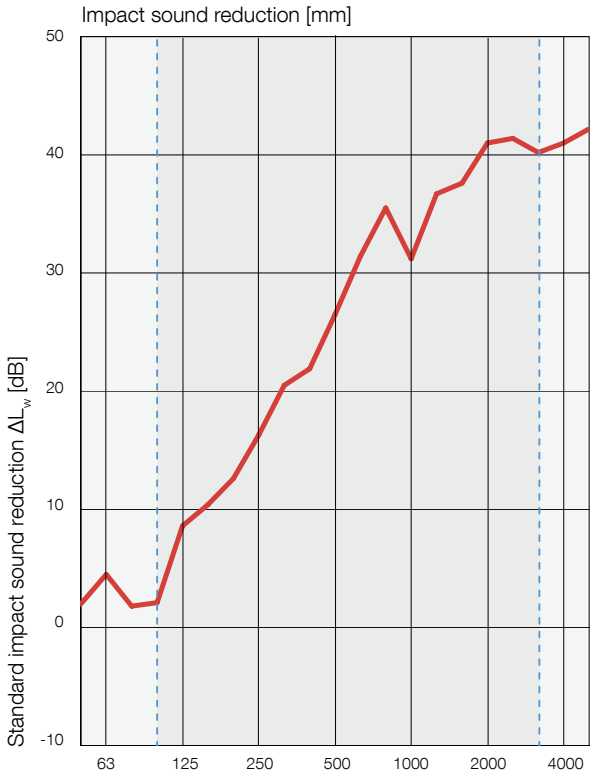
Feature	Test procedure	Value
Max. load	–	5.0 N/mm^2
Colour	–	black
Density	ASTM F104	900 – 1020 kg/m^3
Temperature range	constant	-10 / +100 °C
Shore hardness	ASTM D2240	65 – 75 A
Elongation at break	ASTM F152	> 66 %
Tensile strength	ASTM F152	> 1.8 N/mm^2
Compression at break 50 % / 23 °C / 70 h	DIN 53572	< 8 %
Max. possible compression at 2.8 N/mm^2	ASTM F36	10 – 20 %
Compressibility recovery at 2.8 N/mm^2	ASTM F36	> 80 %
Modules of elasticity 1 – 100 Hz	ASTM D797	9.4 – 13.3 N/mm^2
tg δ 1 – 100 Hz	ASTM D797	0.17 – 0.36











Static load p = 2.5 N/mm^2, Bearing thickness 10 mm
Test report 1049-001-06,
Test Institut SG-Bauakustik,
Mülheim a. d. Ruhr

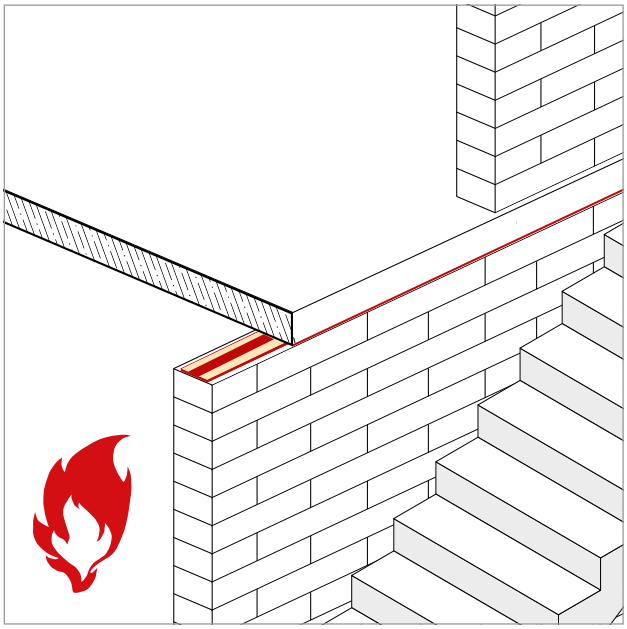
Rating to ISO 717-2
Δ L_w = 31 dB

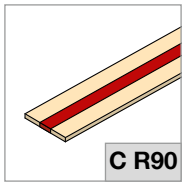
Egcodist C R90

Centring bearing with fire protection and limited horizontal deformability

The Egcodist C R90 enables torsion and small changes in length by deformation of the core strip.

- EPDM-core strip
- Bearing class 2 according to DIN 4141, part 3
- Fire protection class F90 (test certificate MPA Braunschweig Nr. 6941/2011)





Egcodist C R90

Load centring

Compensation for irregularities

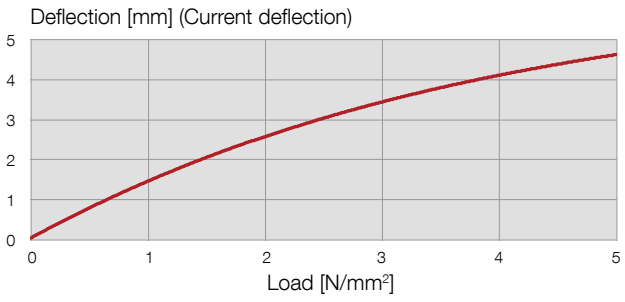
Fire protection

Bearing thickness	Bearing width	Core strip	Design resistance line load	Characteristic resistance line load	Permissible horizontal movement	Maximum angle of rotation
t [mm]	$b_{Bearing}$ [mm]	b_E [mm]	$V_{R,d}$ [kN/m]	$V_{R,k}$ [kN/m]	Δx [mm]	α [°]
10	175	50	140	200	± 4.8	4
	240					
	175	60	210	250		
	240					

Standard length 1.20 m. Special widths on request.

Egcodist C R90 – Technical data elastomeric bearing (EPDM – core strip)

Feature	Test procedure	Value
Max. load	–	5.0 N/mm²
Colour	–	black
Density	DIN EN ISO 1183 / ISO 2781	1060 kg/m³
Temperature range	constant	-35 until +100 °C (short-term +100 °C)
Shore hardness	DIN 53 505 / ISO 7619	55 – 65 A
Elongation at break	DIN 53 504 / ISO 37	> 400 %
Tensile strength	DIN 53 504 / ISO 37	> 18 N/mm²
Ozone resistance	ISO 1431-1 (50 ppm, 40 °, 72 h, 20 % elongation)	ozone resistant



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