Cigular® Slab Bearing

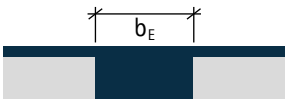
Structural bearing for static structural members

Design values

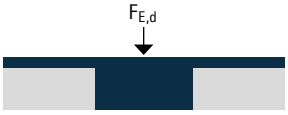
The Cigular® slab bearings type S and type S / F90 are available in a bearing thickness of 10 mm.

DIMENSIONING CIGULAR® SLAB BEARING TYPE S AND TYPE S / F90

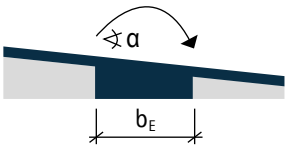
Elastomer width



All. vertical force



All. rotation



All. horizontal deformation on all sides

b_E [mm]	$F_{R,d}$ [kN/m]	α [‰]
35	55	40
47	73	40
60	94	40
71	111	40
83	129	40
94	146	40
106	165	37
118	183	33
130	202	30
142	221	28
154	239	25
165	256	24
177	274	22
188	293	21
200	311	20

zul. u = ± 10 mm

Horizontal force (restoring force from horizontal bearing deformation): s. Diagram ‚Ratio of horizontal force to vertical force', page 2 and design example, page 2

FORMULA SYMBOLS

b_E	Elastomeric bearing width
$F_{R,d}$	All. vertical force
u	Shear deformation of the bearing
H	Horizontal force
α	All. bearing rotation

Cigular® Slab Bearing

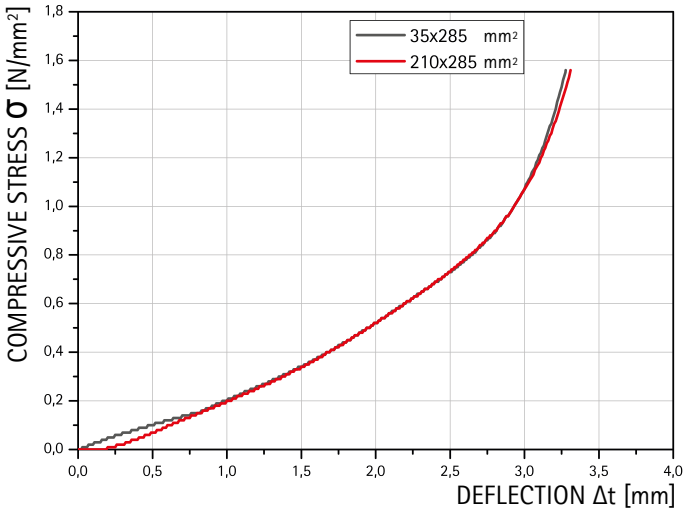
Structural bearing for static structural members

Design example

Given: $F_{E,d}$ = 58 kN/m α = 17 ‰ u = ± 5 mm

Chosen:
Elastomeric bearing width 47 mm
$F_{E,d}$ = 58 kN/m < 73 kN/m = $F_{R,d}$
existing α = 17 ‰ < 40 ‰ = all. α
existing u = ± 5 mm < all. u = ± 10 mm

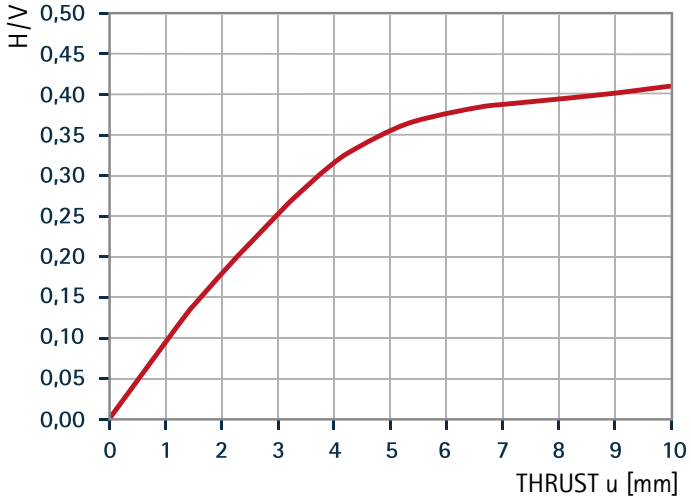
Load deflection curve



DIAGRAM

Pressure surfaces concrete,
Bearing widths: 35 to 200 mm

H / V



DIAGRAM

Ratio of horizontal force H
to vertical force V

Calenberg Ingenieure GmbH | Am Knübel 2-4 | 31020 Salzhemmendorf | Germany | info@calenberg-ingenieure.de | www.calenberg-ingenieure.de