

ESZ Type 200 - 25

t = 5mm

Unreinforced elastomer bearing for use in accordance with DIN 4141 Part 3, bearing class 2
 General Building Authority Approved Test Certificate no. A 15-BvL-2004, Technical University of Munich



WILFRIED BECKER GMBH
 Elastomer Service Zentrale

Weilerhöfe 1
 41564 Kaarst-Büttgen

Phone +49 21 31 75 81 00
 Fax +49 21 31 75 81 11

E-Mail: info@esz-becker.de
 Internet: www.esz-becker.de

Design table*

orange table: perm. F = kN

blue table: perm. $\sigma = N/mm^2$

grey table: perm. $\alpha = \%$ in radian measure (perpendicular to smaller bearing side)

Permissible loads:

1. Compressive stress:

perm. σ m:

1,50 ≤ S < 2,50: 10,0 N/mm²

2,50 ≤ S < 3,50: 20,0 N/mm²

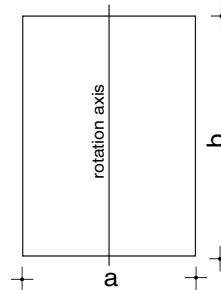
3,50 ≤ S: 25,0 N/mm²

2. Torsion:

$$\text{perm. } \alpha = 0,2 \times t/a \times \left(1 + \frac{\sigma_{\text{perm}} - \sigma_{\text{actual}}}{\sigma_{\text{perm}}}\right)$$

3. Displacement:

$$\text{perm. } u = 0,6 \times (t-2)$$



The shape factor S is calculated as follows:

$$S = \frac{a \cdot b}{2t(a+b)} \quad a/b/t = \text{width/length/thickness of the unloaded bearing in mm}$$

	a	50	80	100	110	120	130	140	150	160	170	180	190	200	250	300	350	400	500
b	α_a	no permissible planned torsion																	
	α_b	no permissible planned torsion																	
no permissible planned torsion	100	125 25	200	250	275	300	325	350	375	400	425	450	475	500	625	750	875	1000	1250
	110	25	220 25	275	303	330	358	385	413	440	468	495	523	550	688	825	963	1100	1375
	120	25	25	300 25	330	360	390	420	450	480	510	540	570	600	750	900	1050	1200	1500
	130	25	25	25	358 25	390	423	455	488	520	553	585	618	650	813	975	1138	1300	1625
	140	25	25	25	25	420 25	455	490	525	560	595	630	665	700	875	1050	1225	1400	1750
	150	25	25	25	25	25	488 25	525	563	600	638	675	713	750	938	1125	1313	1500	1875
	160	25	25	25	25	25	25	560 25	600	perm. $\sigma = N/mm^2$									
	170	25	25	25	25	25	25	25	638 25										
	180	25	25	25	25	25	25	25	25										
	190	25	25	25	25	25	25	25	25										
200	25	25	25	25	25	25	25	25											
250	25	25	25	25	25	25	25	25											
300	25	25	25	25	25	25	25	25											
350	25	25	25	25	25	25	25	25											
400	25	25	25	25	25	25	25	25											
500	25	25	25	25	25	25	25	25											
800	25	25	25	25	25	25	25	25											
1000	25	25	25	25	25	25	25	25											

* for mating faces made out of reinforced and prestressed concrete