

ESZ Type 200 - 25

t= 15mm

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



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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

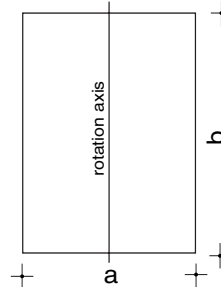
3,50 ≤ S: 25,0 N/mm²

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	75	80	100	110	120	130	140	150	160	170	180	190	200	250	300	350	400	500
b	α_a α_b	40,0	37,5	30,0	27,3	25,0	23,1	21,4	20,0	18,8	17,6	16,7	15,8	15,0	12,0	10,0	8,6	7,5	6,0
100	30,0	75 10	80	150	165	180	195	210	225	240	255	270	285	300	375	600	700	800	1000
110	27,3	10	132 15	165	182	198	215	231	248	264	281	297	314	330	550	660	770	880	1375
120	25,0	15	15	180 15	198	216	234	252	270	288	306	324	342	360	600	720	840	1200	1500
130	23,1	15	15	15	215 15	234	254	273	293	312	332	352	372	392	650	795	1138	1300	1625
140	21,4	15	15	15	15	252 15	273	294	315	336	357	378	399	420	700	1050	1225	1400	1750
150	20,0	15	15	15	15	15	293 15	315	337	359	381	403	425	447	750	1125	1313	1500	1875
160	18,8	15	15	15	15	15	15	448 20	480	512	544	576	608	640	1000	1200	1400	1600	2000
170	17,6	15	15	15	15	15	20	20	510 20	544	578	612	646	680	1063	1275	1488	1700	2125
180	16,7	15	15	15	15	20	20	20	20	576 20	612	646	680	714	1125	1350	1575	1800	2250
190	15,8	15	15	15	15	20	20	20	20	20	646 20	680	714	748	1188	1425	1663	1900	2375
200	15,0	15	15	15	15	20	20	20	20	20	20	25	900 25	950	1000	1250	1500	1750	2500
250	12,0	15	15	15	20	20	20	20	25	25	25	25	25	1188 25	1250	1563	1875	2188	3125
300	10,0	15	15	20	20	20	25	25	25	25	25	25	25	25	1500 25	1875	2250	2625	3750
350	8,6	15	15	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	2188
400	7,5	15	15	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	3000
500	6,0	15	15	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
800	3,8	15	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
1000	3,0	15	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

* for mating faces made out of reinforced and prestressed concrete