

ESZ Type 200 - 25

t= 20mm

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

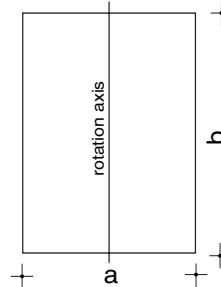
3,50 ≤ S: 25,0 N/mm²

2. Torsion:

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

3. Displacement:

perm. u = 0.6 x (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	100	110	120	130	140	150	160	170	180	190	200	230	250	300	330	350	400	500
b	α_a	40,0	36,4	33,3	30,8	28,6	26,7	25,0	23,5	22,2	21,1	20,0	17,4	16,0	13,3	12,1	11,4	10,0	8,0
	α_b																		
100	40,0	100 10	110	120	130	140	225	240	255	270	285	300	345	375	450	495	525	600	750
110	36,4	10	121 10	132	143	231	248	264	281	297	314	330	380	413	495	545	578	660	825
120	33,3	10	10	216 15	234	252	270	288	306	324	342	360	414	450	540	594	630	720	1200
130	30,8	10	10	15	254 15	273	293	312	332	351	371	390	449	488	585	644	683	1040	1300
140	28,6	10	15	15	15	294 15	315	336	357	378	399	420	483	525	630	924	980	1120	1400
150	26,7	15	15	15	15	15	338 15	360	383	405	428	450	518	563	900	990	1050	1200	1500
160	25,0	15	15	15	15	15	15	384 15	408	432	456	480	552	800	960	1056	1120	1280	2000
170	23,5	15	15	15	15	15	15	15	434 15	459	485	510	782	850	1020	1122	1190	1360	2125
180	22,2	15	15	15	15	15	15	15	15	486 15	513	540	828	900	1080	1188	1260	1800	2250
190	21,1	15	15	15	15	15	15	15	15	15	542 15	760	874	950	1140	1568	1663	1900	2375
200	20,0	15	15	15	15	15	15	15	15	15	15	20	800 20	920	1500	1650	1750	2000	2500
250	16,0	15	15	15	15	15	15	20	20	20	20	20	20	20,0 20	1150 20	1563	1875	2063	3125
300	13,3	15	15	15	15	15	20	20	20	20	20	20	20	25	25	1875 25	2250	2475	3750
350	11,4	15	15	15	15	20	20	20	20	20	20	20	25	25	25	25	25	25	25
400	10,0	15	15	15	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25
500	8,0	15	15	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25
800	5,0	15	15	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25
1000	4,0	15	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25

* for mating faces made out of reinforced and prestressed concrete