

ESZ Type C-20-C

t = 20 mm

Non-reinforced elastomer bearing for use according to DIN 4141 part 3, bearing class 2
 General supervisory test certificate no. P-22-MPANRW-1988-2 by MPA Dortmund



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Design table*

orange table: perm. F = kN

blue table: perm. α = % in radian measure

Permissible stresses:

(at right angles to bearing side a)

1. Compressive stress:

perm. σ_m :

1.00 < S ≤ 1.25: 7.5 N/mm²

1.25 < S ≤ 1.50: 10.0 N/mm²

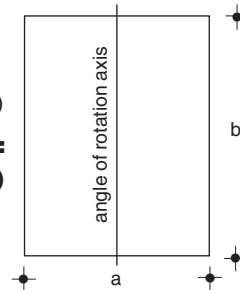
1.50 < S: 15.0 N/mm²

2. Torsion:

perm. $\alpha = 0.2 \times t/a$

3. Displacement:

perm. $u = 0.6 \times (t-2)$



The shape factor S is calculated as follows:

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

$\frac{a}{b}$ mm/mm	100	110	120	130	140	150	160	170	180	190	200	230	250	300	330	350	400	450	500
100	75 40	110	120	130	140	150	240	255	270	285	300	345	375	450	495	525	600	675	750
110	40	121 36.4	132	143	231	248	264	281	297	314	330	380	413	495	545	578	660	743	825
120	40	36.4	216 33.3	234	252	270	288	306	324	342	360	414	450	540	594	630	720	810	900
130	40	36.4	33.3	254 30.8	273	293	312	332	351	371	380	390	488	585	644	683	780	876	975
140	40	36.4	33.3	30.8	294 28.6	315	336	357	378	399	420	483	525	630	693	735	840	945	1050
150	40	36.4	33.3	30.8	28.6	338 26.7	360	383	405	428	450	518	563	675	743	788	900	1013	1113
160	40	36.4	33.3	30.8	28.6	26.7	384 25.0	408	432	456	480	552	600	720	792	840	960	1080	1200
170	40	36.4	33.3	30.8	28.6	26.7	25.0	434 23.5	459	485	510	587	638	765	842	893	1020	1148	1275
180	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	486 22.2	513	540	621	675	810	891	945	1080	1215	1350
190	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	22.2	542 21.1	570	656	713	855	941	998	1140	1283	1425
200	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	22.2	21.1	600 20.0	690	750	900	990	1050	1200	1350	1500
230	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	22.2	21.1	20.0	794 17.4	863	900	990	1208	1380	1553	1725
250	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	22.2	21.1	20.0	17.4	938 16.0	1125	1238	1313	1500	1688	1875
300	40	36.4	33.3	30.8	28.6	26.7	25.0	23.5	22.2	21.1	20.0	17.4	16.0	1350 13.3	1485	1575	1800	2025	2250
330	40	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	1634 12.1	1733	1980	2228	2475
350	40	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	1838 11.4	2100	2363	2625
400	40	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	2400 10.0	2700	3000
450	40	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	3038 8.9	3375
500	40	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	8.9	3750 8.0

2000.4.03.SD

* for mating faces in reinforced concrete and prestressed concrete