

○ Failed test-pieces ● Unfailed run-outs

Perlschnur-Ausgleichsgerade: $\lg N = a + k \lg \sigma$

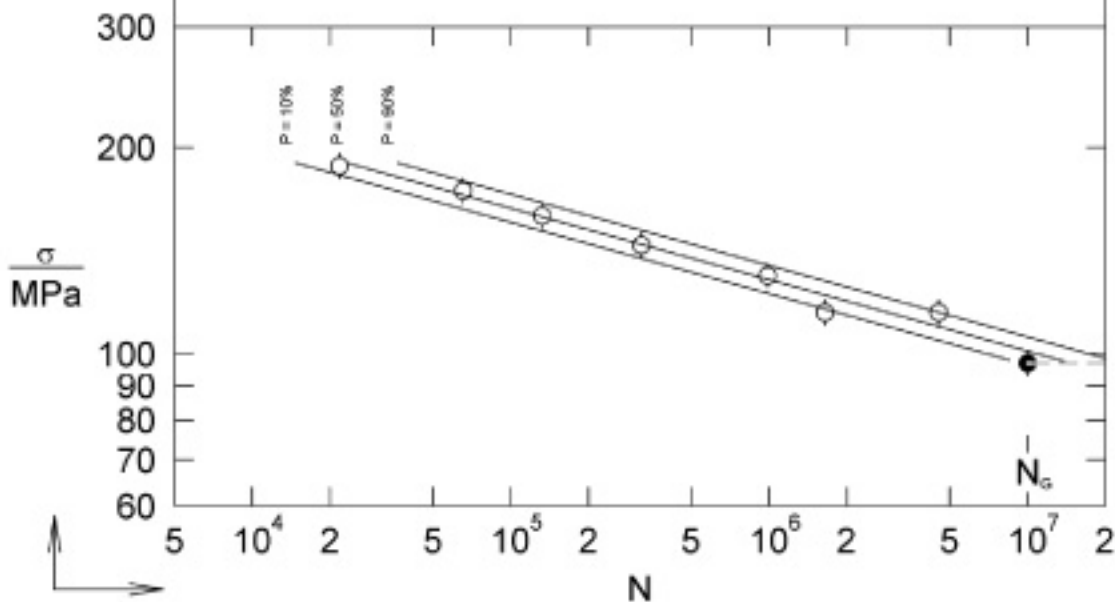
$$a = 26,276$$

$$k = -9,617$$

$$\text{Korrelationskoeff.} = 0,9825$$

$$\text{Schätzwert } \sigma_A = 97 \text{ MPa}$$

$$N_K (\text{Schätzwert } \sigma_A) = 14783145$$



SAFD - JPMMA 26 - Copy.cmv

Material: Fe-1.5 % Cu; sponge iron
sintering: 1120 °C, 35 min, endogas
heat treatment: -
density: 6.72 g/cm³
mech. properties: H = 50 HRB; R_{p0.2} = -; R_m = 399 MPa
Specimen: smooth, K_t = 1.0; surface machined
Loading mode: rotary bending, R = -1
Limiting no. of cycles: 10⁷
Endurance limit: 98 MPa (97 MPa this evaluation)
Reference: M. Onoda: Fatigue Strength of Sintered Structural Component Materials; Japan Powder Metallurgical Association, Tokyo, 1983 (in Japanese)

Stress amplitude:	97	115	130	144	159	173	188	MPa
Cycles to failure:	10000.000	1648.162	988.553	320.627	132.130	65.464	21.777	- 1000
		4528.976						