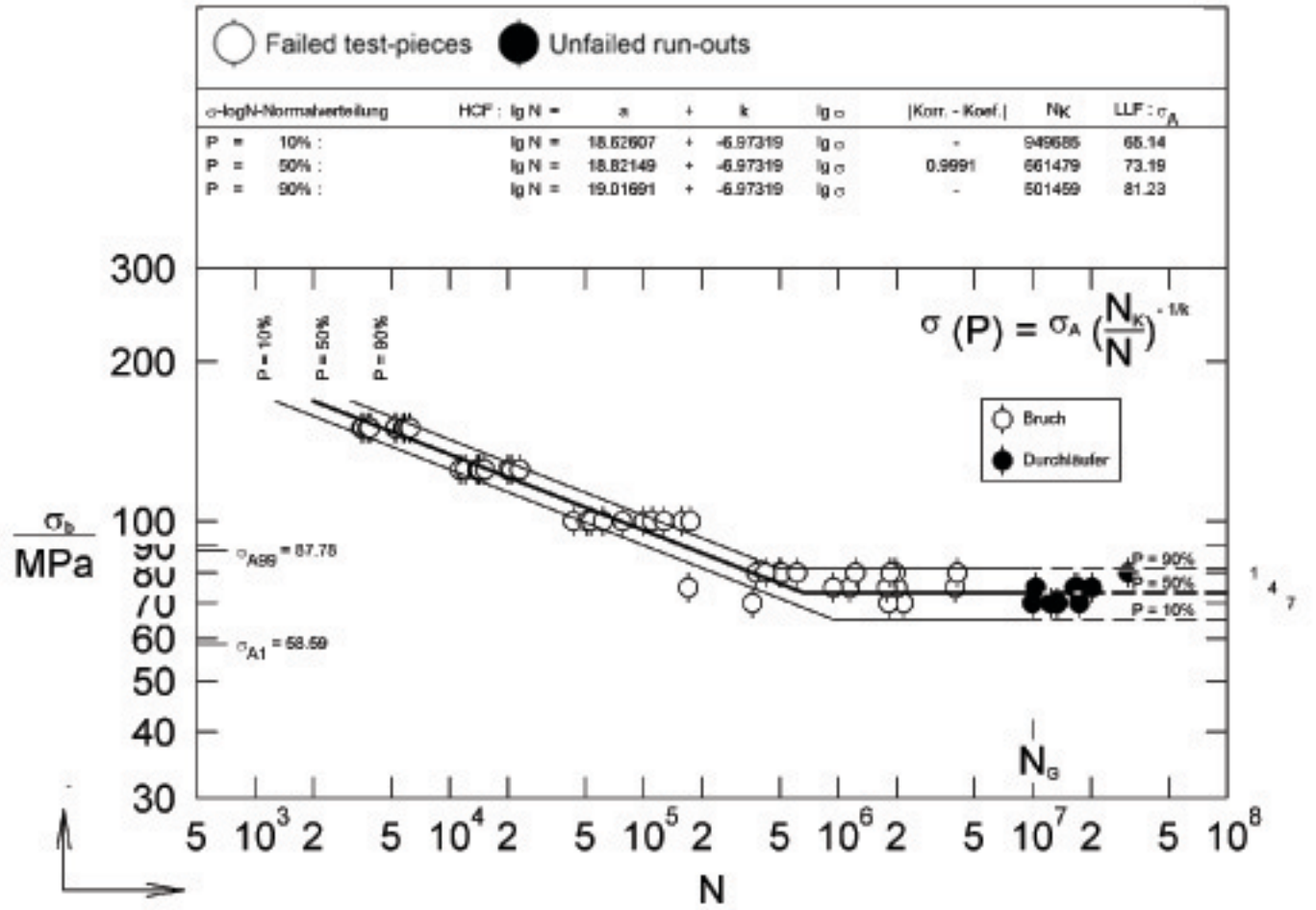

Material:	Fe-1.5 % Cu-0.6 % C; iron: water atomized carbon: graphite UF4 sintering: ca. 1120 °C, ca. 20 min, 95 % N_2 + 5 % H_2, 0.8 °C/s cooling rate heat treatment: - density: 5.83 g/cm³ mech. properties: H =77 HBW 2.5/62.5, $R_{p0.2}$ = - , R_m = -
Specimen:	smooth, K_t = 1.0; ISO 3928; surface as sintered
Loading mode:	Plane bending; R = −1; two different types of machines with 50 Hz and 120 Hz
Limiting no. of cycles:	10^7
Endurance limit:	73.2 MPa
Reference:	A. Zafari, P. Beiss; Fatigue Strength of Iron-Copper-Carbon PM steels ;PM Auto 2006, Proc. CD, Isfahan, 2006

Stress amplitude:	70	75	80	100	125	150	MPa
Cycles to failure:	12422.500	17065.400	493.900	43.300	23.025	5.900	· 1000
	10000.000	10358.300	1227.024	157.300	20.794	5.250	
	2174.475	169.700	380.420	99.700	14.251	3.529	
	10000.000	3999.200	1967.900	110.400	12.004	6.285	
	13301.122	16412.799	512.600	50.900	13.900	3.583	
	13415.465	2018.638	31112.642	61.600	15.300	5.800	
	1816.100	1146.900	1852.388	127.070	11.323	5.300	
	17353.600	938.365	4112.000	53.500	14.314	6.200	
	12362.400	20133.631	424.300	173.600	14.000	3.800	
	361.600	1783.100	614.300	77.881	20.060	3.900	