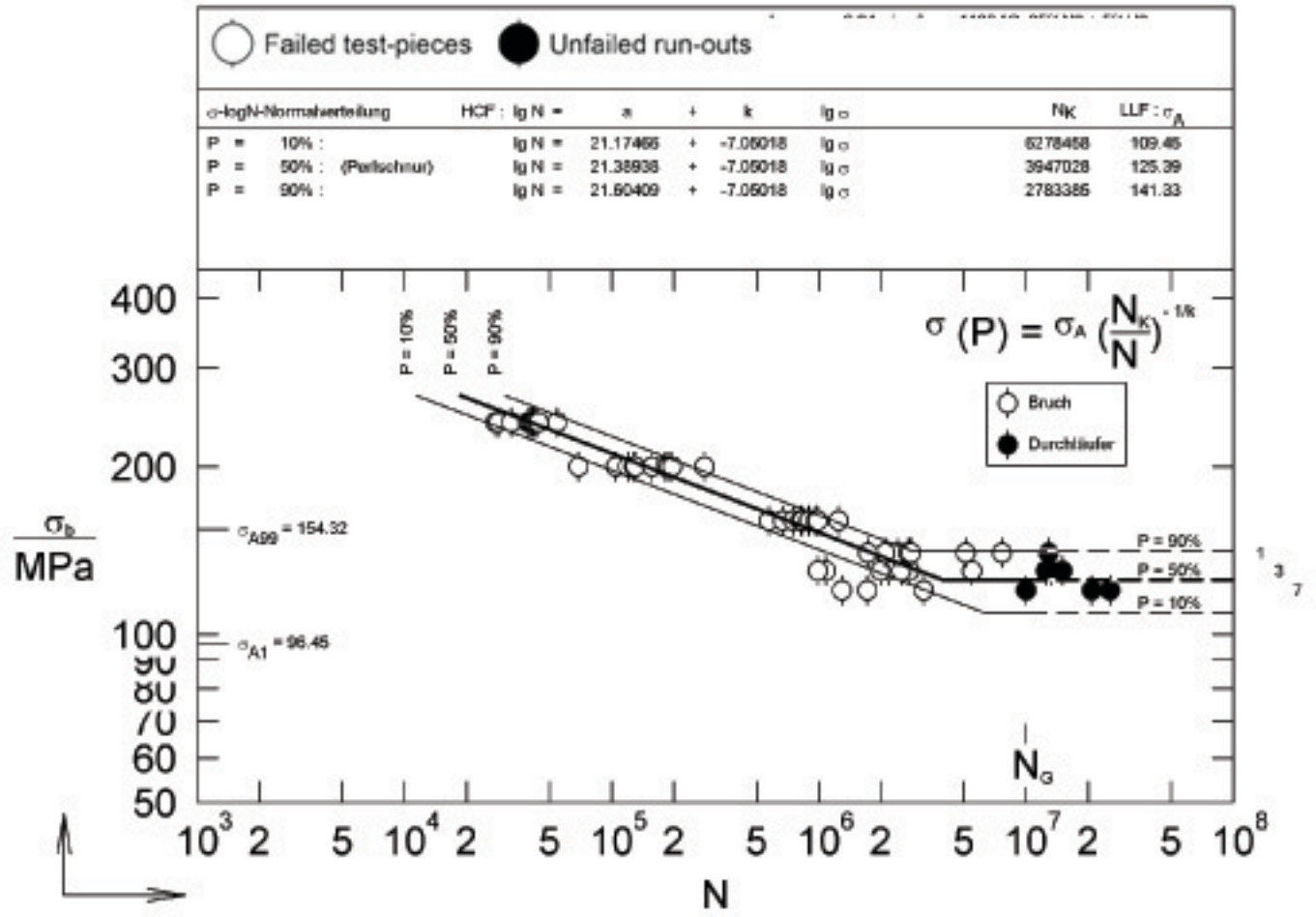

Material:	Fe-1.5 % Cu-0.6 % C; iron: water atomized carbon: graphite UF4 sintering: ca. 1120 °C, ca. 20 min, 95 % N_2 + 5 % H_2, 0.8 °C/s cooling rate heat treatment: - density: 6.94 g/cm^3 mech. properties: H =154 HBW 2.5/62.5, $R_{p0.2}$ = - , R_m = -
Specimen:	notched, K_t = 1.8; ISO 3928; surface 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:	125.4 MPa
Reference:	A. Zafari, P. Beiss; Fatigue Strength of Iron-Copper-Carbon PM steels ;PM Auto 2008, Proc. CD, Isfahan, 2008

Stress amplitude:	120	130	140	160	200	240	MPa
Cycles to failure:	10000.000	5470.200	5100.200	669.500	188.500	32.700	· 1000
	1293.100	13211.700	12831.400	749.300	279.600	28.400	
	25465.100	14941.000	2401.600	816.900	119.300	43.000	
	10000.000	1077.600	2724.500	829.900	69.000	44.300	
	10019.800	12395.100	2401.900	985.900	180.900	39.200	
	1707.600	2737.600	2702.300	573.600	129.900	41.900	
	10000.000	2180.300	2089.600	961.400	104.500	27.400	
	20685.300	2499.300	2787.100	897.700	195.200	54.600	
	10000.000	1988.500	7641.400	892.300	156.900	41.400	
	3208.100	986.700	1724.700	1240.700	127.500	40.200	