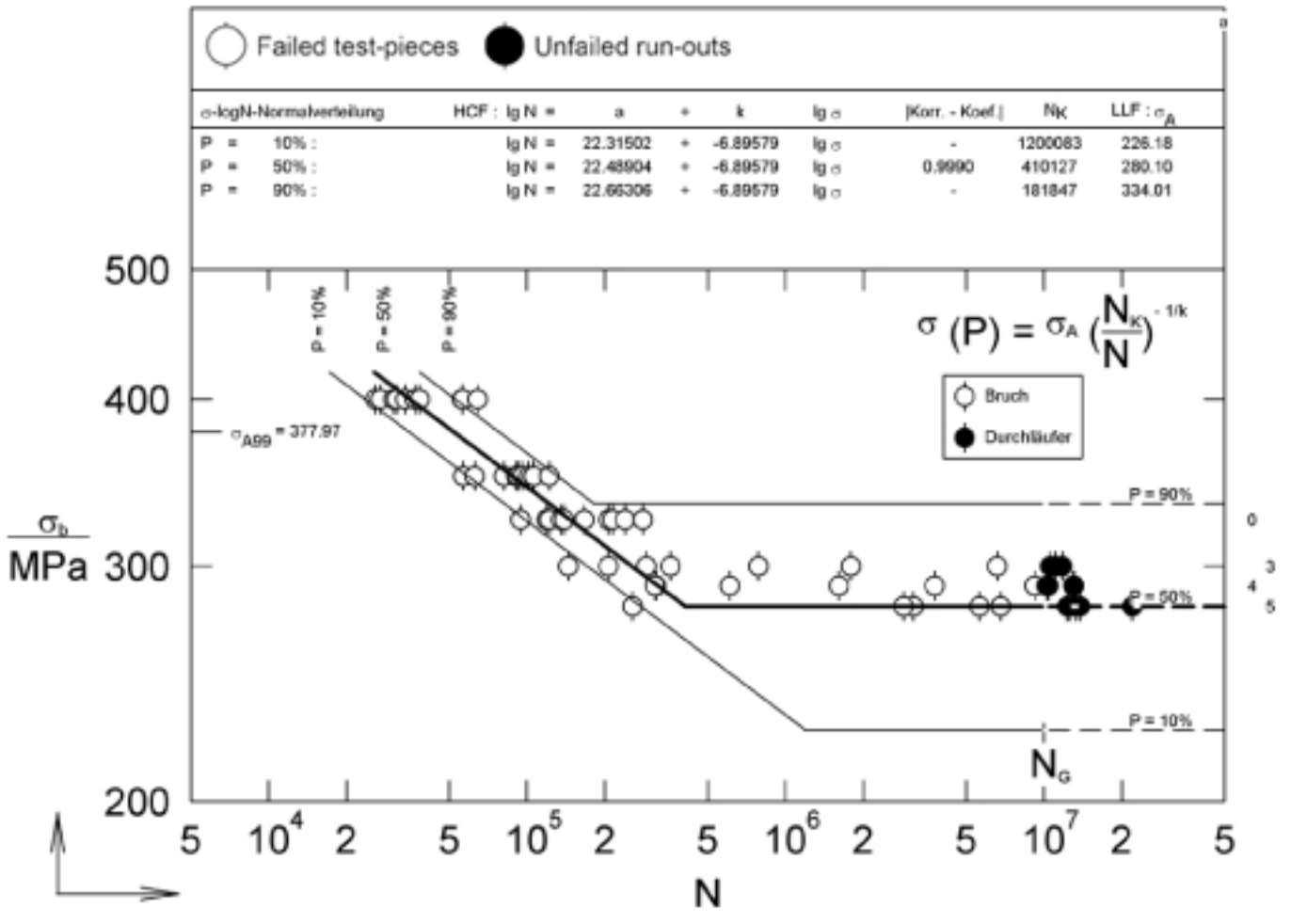

Material:	Fe-1.5 % Cu-0.6 % C; iron: water atomized sintering: 1120 °C, 20 min, 95 % N_2 + 5 % H_2 heat treatment: quenched and tempered (austenitized 870°C/40min in endogas with 0.6 % carbon potential; oil quenched and tempered 180°C/60min) density: 6.81 g/cm³ mech. properties: H = 373 HBW 2.5/187.5, $R_{p0.2}$ = - , R_m = -
Specimen:	smooth, K_t = 1.0; ISO 3928; surface as sintered
Loading mode:	Plane bending; R = -1
Limiting no. of cycles:	10^7
Endurance limit:	280.1 MPa
Reference:	A. Zafari, P. Beiss; Effect of Different Heat Treatments on the Fatigue Strength of Fe-Cu-C; Proc. EURO PM2007, Vol. 1, p. 175-180; EPMA, Shrewsbury, 2007

Stress amplitude:	280	290	300	325	350	400	MPa
Cycles to failure:	13320.1	3778.6	6604.3	166.0	56.5	31.2	· 1000
	12555.4	608.7	783.9	206.5	122.0	33.7	
	256.1	1603.0	11758.2	121.8	62.7	30.5	
	12326.7	315.8	11030.0	280.7	92.3	36.8	
	3126.1	13087.7	10531.7	213.4	106.3	27.1	
	13766.3	10413.2	206.1	138.9	95.8	64.1	
	6781.3	9177.7	144.3	118.5	90.5	56.3	
	2857.3	12919.8	357.9	135.1	105.6	38.3	
	21962.7	312.9	289.1	239.2	81.1	55.9	
	5613.2	10243.2	1784.9	94.3	101.5	25.8	