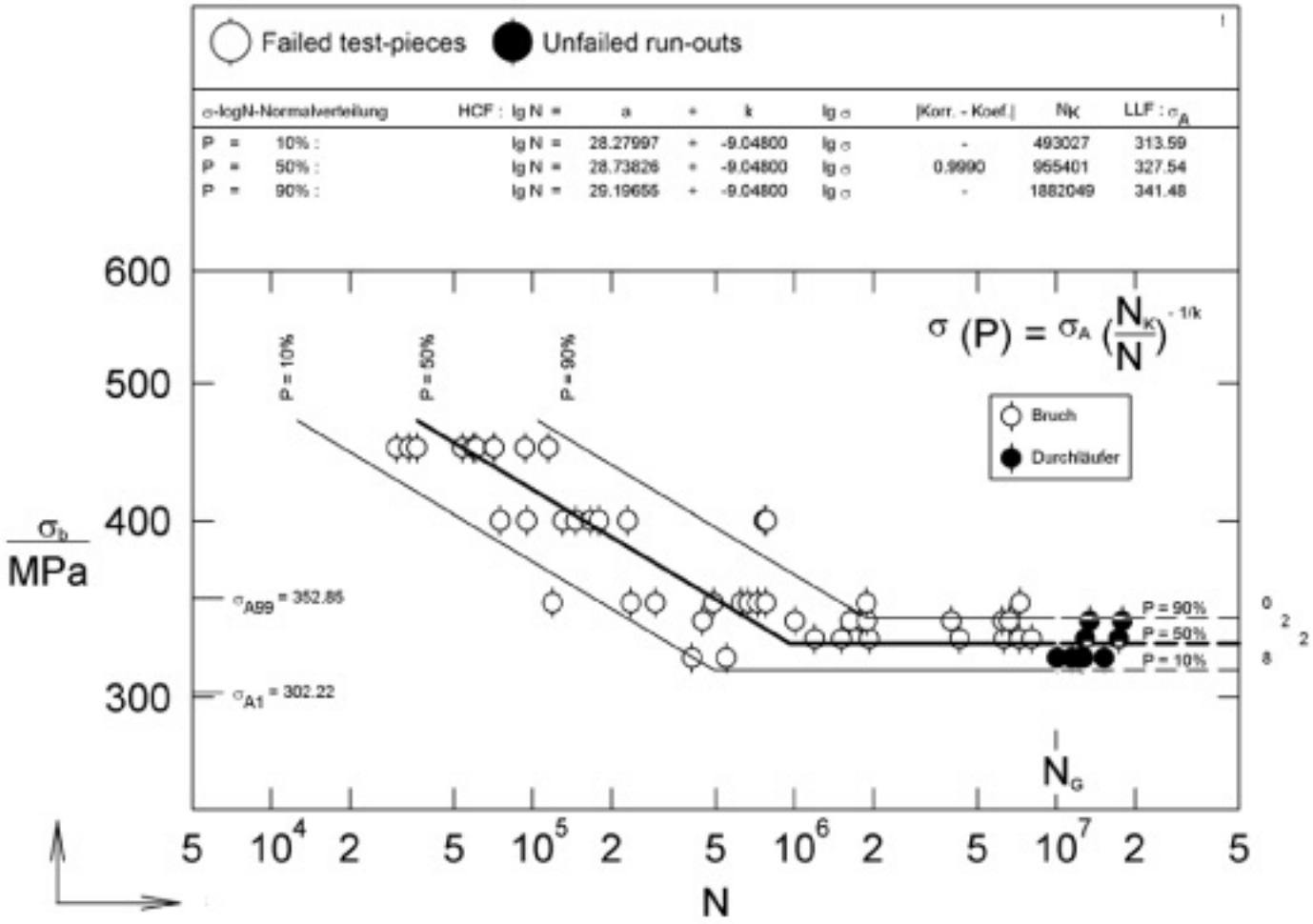

Material:	Fe-1.5 % Cu-0.6 % C; iron: water atomized sintering: 1120 °C, 20 min, 95 % N_2 + 5 % H_2 heat treatment: case hardened (austenitized 920°C/30min with 1.1 % carbon potential + 870°C/30min with 0.8 % carbon potential and 4 % NH_3; oil quenched and tempered 200°C/30min) density: 6.91 g/cm³ mech. properties: H = 412 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:	327.5 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:	320	330	340	350	400	450	MPa
Cycles to failure:	547.2	6280.0	6228.1	622.4	230.3	33.5	· 1000
	10084.1	1192.5	1789.3	490.2	764.4	60.7	
	12609.4	7212.3	1631.7	722.1	74.8	30.2	
	12650.5	1511.5	17883.5	1880.8	178.4	93.3	
	404.9	4263.5	444.3	7249.0	780.5	53.8	
	12536.4	8033.5	3964.1	666.9	130.1	36.1	
	12668.1	17348.1	13427.4	236.8	94.9	71.3	
	12335.4	1930.5	6622.2	777.3	166.0	70.8	
	11472.5	12873.3	1895.6	118.8	145.9	114.6	
	15246.6	1929.5	1003.5	293.8	145.5	58.8	