



Material: Fe-1.5 % Cu-0.0 % C; iron; water atomized
heat treatment: -
density: 6.93 g/cm³
Specimen: mech. properties: H = 93 HBW 2.5/62.5, R_{0.2} = - , R_m = -
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: 10⁷
Endurance limit: 112.5 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:	110	115	120	130	140	160	190	MPa
Cycles to failure:	12914.3	3996.8	1486.4	393.5	838.3	167.7	32.0	· 1000
	10000.0	1699.0	1447.2	2508.7	212.4	135.6	55.1	
	1835.3	17593.5	4930.8	1305.4	451.4	252.7	39.5	
	12057.9	2371.7	3474.1	2878.1	3026.5	98.6	24.7	
	12817.0	12480.3	593.0	778.7	616.5	110.3	63.9	
	12743.5	2178.1	10000.0	1175.5	670.7	64.7	33.1	
	5495.5	2340.4	348.8	613.7	289.6	176.1	32.3	
	3928.5	13125.6	1606.3	967.5	775.5	124.0	30.3	
	3182.6	10000.0	909.0	789.4	972.0	100.1	33.4	
	18117.3	2743.7	16854.2	592.7	252.2	109.2	31.8	