



Material: Fe-1.5 % Cu-0.6 % C; iron: water atomised

carbon: not specified; sintering: 1120 °C, 30 min, 70 % N₂ + 30 % H₂

heat treatment: -

density: 7.19 g/cm³

mech. properties: H = 142 HV10; R_{p0.2} = 389 MPa; R_m = 483 MPa

Specimen: rectangular bar 90 x 11 x 5, central hole Ø 2 mm, hole compacted, K_t = 2.8; surface as sintered

Loading mode: axial; R = 0; 25Hz

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 64 MPa (extrapolated)

Reference: C.M. Sonsino: Ermittlung anwendungsrelevanter Kenngrößen für Sintermetalle. LBF-Report No. FB-158: Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1981

Stress amplitude:	90	130	MPa
Cycles to failure:	109,640	7,533	· 1000
	128,520	10,045	
	159,210	11,065	
	192,739	13,771	