



Material: Fe-1.5 % Cu-0.6 % C; iron: water atomised  
copper:  
carbon: not specified; sintering: 1120 °C, 30 min, 70 % N<sub>2</sub> + 30  
heat treatment: -  
density: 7.19 g/cm<sup>3</sup>  
mech. properties: H = 142 HV10; R<sub>p0.2</sub> = 389 MPa; R<sub>m</sub> = 483 M

Specimen: rectangular bar 90 x 11 x 5, central hole ∅ 2 mm, hole compacted, K<sub>t</sub> = 2.0; surface as sintered

Loading mode: plane bending; R = -1; 25Hz

Limiting no. of cycles: 2 · 10<sup>6</sup>

Endurance limit: 137 MPa (extrapolated)

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

Stress amplitude:	179	180	200	216	MPa
Cycles to failure:	174,570	255,252	115,072	40,735	- 1000
	193,183				
	237,121				
	331,872				