

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

copper: FS

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

heat treatment: density: 6.92 g/cm³

mech. properties: H = 122 HV10; $R_{p0.2}$ = 359 MPa; R_m = 433 Mg

Specimen: rectangular bar 90 x 11 x 5, central hole Ø 2 mm, hole compacted, K₁ = 2.8; surface as sintered

Loading mode: axial; R = 0; 25Hz

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 50 MPa (extrapolated)

Reference: C.M. Sonsino: Ermittlung anwendungsrelevanter Kenngrößen für Sintermetalle. LBF-Report No.

FB-158: Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1981

Stress amplitude:	70	90	100	MPa
Cycles to failure:	132,730	45,182	12,302	- 1000
	158,114			
	161,797			
	197,683			
	297,831			