



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: 6.92 g/cm<sup>3</sup>  
mech. properties: H = 122 HV10; R<sub>p0.2</sub> = 359 MPa; R<sub>m</sub> = 433

Specimen: hourglass, Ø 6 mm, shaft Ø 10 mm, curvature R 18, K<sub>t</sub> = 1.0; surface

Loading mode: torsion; R = -1; 25Hz

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

Endurance limit: 105 MPa

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

Stress amplitude:	100	107	112	113	114	116	123	128	131	140	150	164	185	MPa
Cycles to failure:	2013.585	2013.585	1667.132	2000.000	1321.204	1555.858	339.602	651.583	1051.889	74.640	40.269	57.012	####	1000
			2013.585							93.104	69.178			
										199.686				
										130.308				
										143.539				
										188.786				