



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

carbon: not specified; sintering: 1120 °C, 30 min, 70 % N<sub>2</sub> + 30 % H<sub>2</sub>

heat treatment: 840 °C, 1h; oil 60 °C; 430 °C, 1h

density: 6.8 ± 0.05 g/cm<sup>3</sup>

mech. properties: H = 252 HB 2.5/62.5; R<sub>p0.2</sub> = 730 MPa; R<sub>m</sub> = 750 MPa

Specimen: rectangular bar 90 x 11 x 5, central hole ∅ 2 mm, hole compacted, K<sub>t</sub> = 2.8; surface as sintered

Loading mode: axial, R = -1; 25 Hz

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

Endurance limit: 106 MPa (decided)

Reference: C.M. Sonsino: Schwingfestigkeit von verschiedenen Sinterstählen und Bemessungskriterien für gesinterte Bauteile; LBF-Report No. FB-170; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1984

Stress amplitude:	107	111	118	121	139	149	MPa
Cycles to failure:	2000.000	500.000	2000.000	685,441	100,224	59,699	· 1000
		2000.000			104,947	67,759	
					115,072		
					122,453		
					139,627		
					217,756		