



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: 7.1 ± 0.05 g/cm<sup>3</sup>

mech. properties: H = 312 HB 2.5/62.5; R<sub>p0.2</sub> = 773 MPa; R<sub>m</sub> = 810 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 = 0; 25 Hz

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

Endurance limit: 70 MPa (decided)

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

Stress amplitude:	74	81	84	100	MPa
Cycles to failure:	2000.000	132,730	2000.000	32,060	· 1000
		157,387		48,081	
		168,644		74,640	
		195,407			
		220,277			
		554,587			
		845,220			
		1158,697			