



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

carbon: not specified; sintering: 1120 °C, 30 min, 70 % N₂ + 30 % H₂

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

density: 7.1 ± 0.05 g/cm³

mech. properties: H = 312 HB 2.5/62.5; R_{p0.2} = 773 MPa; R_m = 810 MPa

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

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

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 102 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:	95	99	113	143	MPa
Cycles to failure:	2000.000	2000.000	163,670	36,055	· 1000
			216,257	42,264	
			291,052	80,347	
			365,570	109,893	
			616,552		
			653,085		
			756,727		