



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:  $7.1 \pm 0.05 \text{ g/cm}^3$

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

Specimen: smooth,  $K_t = 1.0$ ; ISO 3928; surface as sintered

Loading mode: plane bending,  $R = -1$ ; 25 Hz

Limiting no. of cycles:  $2 \cdot 10^6$

Endurance limit: 307 MPa (decided)

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

Stress amplitude:	336	356	385	MPa
Cycles to failure:	2000.000	90,567	78,518	· 1000
		112,453	103,269	
		132,730	128,816	
		141,244		
		500,000		
		2000.000		