



**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 % 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 Ø 2 mm, hole compacted, K<sub>t</sub> = 2.0; surface as sintered

**Loading mode:** plane bending, R = 0; 25 Hz

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

**Endurance limit:** 119 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:	131	142	161	MPa
Cycles to failure:	372,366	2000.000	89,530	· 1000
	400,839		108,635	
	1745.702		126,756	
			159,210	