



Material: Fe-1.5 % Cu carbonitrided; iron: water atomised copper:

heat treatment: 920 °C, 3.5 h, endogas with 0.17 % CO<sub>2</sub> + NH<sub>3</sub>; oil 60 °C;  
 no tempering mentioned; case depth: 0.4 - 1mm  
 density: 7.1 ± 0.05 g/cm<sup>3</sup>  
 mech. properties: H = 582 HV10; R<sub>p0.2</sub> = -; R<sub>m</sub> = 770 MPa

Specimen: smooth, K<sub>t</sub> = 1.0; ISO 3928; surface as sintered

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

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

Endurance limit: 292 MPa (extrapolated)

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:	327	381	MPa
Cycles to failure:	346,713	46,986	· 1000
	460,225	59,699	
	485,255	72,106	
	629,463	77,978	
	748,118	85,108	
	866,841	98,614	
		114,264	