



Material: Fe-1.5 % Cu carbonitrided; iron: water atomised copper;  
sintering: 1120 °C, 30 min, 70 % N<sub>2</sub> + 30 % H<sub>2</sub>  
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: through hardened  
density: 6.8 ± 0.05 g/cm<sup>3</sup>  
mech. properties: H = 537 HV10; R<sub>p0.2</sub> = -; R<sub>m</sub> = 625 MPa  
Specimen: smooth, K<sub>t</sub> = 1.0; ISO 3928; surface as sintered  
Loading mode: plane bending, R = -1; 25 Hz  
Limiting no. of cycles: 2 · 10<sup>6</sup>  
Endurance limit: 390 MPa  
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:	386	409	436	439	464	MPa
Cycles to failure:	2004.334	458,110	1358.22	171,779	97,717	· 1000
		891,189		229,599	167,098	
		1807.049		250,594	203,690	
		2722.513			219,771	