



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

sintering: 1120 °C, 30 min, 70 % N₂ + 30 % H₂

heat treatment: 920 °C, 3.5 h, endogas with 0.17 % CO₂ + NH₃; oil 60 °C;

no tempering mentioned; case depth: 0.4 - 1 mm

density: 7.1 ± 0.05 g/cm³

mech. properties: H = 582 HV10; R_{p0.2} = -; R_m = 770 MPa

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

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

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 245 MPa (extrapolated)

Reference: C.M. Sonsino: Schwingfestigkeit von verschiedenen 5 Interstäählen und Bemessungskriterien für gesinterte Bauteile; LBF-R-Report No. FB-170; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1984

Stress amplitude:	243	301	400	MPa
Cycles to failure:	330,347	173,368	13,091	· 1000
		238,765	31,913	
		257,022	33,726	
		310,435	36,980	
		398,997	39,171	
			43,149	
			45,706	