



Material: Fe-1.5 % Cu-0.6 % C; Iron: water atomised

carbon: not specified; sintering: 1120 °C, 30 min, endogas plus propane, reheated to 1120 °C in N₂, powder forged
 heat treatment: -
 density: 7.76 g/cm³
 mech. properties: H = 272 HB 2.5/187.5; R_{p0.2} = 587 + 598 MPa; R_m = 851 MPa

Specimen: rectangular bar 90 x 11 x 4, central hole Ø 2mm, hole drilled, K_t = 2.0; surface machined

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

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 250 Mpa

Reference: C.M. Sonsino: Einfluss sintertechnischer Grenzen für die Herstellung von schwingbeanspruchten Bauteilen aus Sinterstahl; LBF-Report No. FB-184; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1989

Stress amplitude:	240	250	360	480	MPa
Cycles to failure:	2000.000	758,525	181,539	46,770	· 1000
	2000.000	2000.000	214,274	47,312	
		2000.000	233,330	48,637	
			254,080	52,116	
			270,377		
			313,285		