



Material:

Fe-1.5 % Cu-0.6 % C; iron: water atomised
copper: FS
carbon: not specified; sintering: 1120 °C, 30 min, 70 % N₂ + 30
heat treatment: -
density: 7.19 g/cm³
mech. properties: H = 142 HV10; R_{p0.2} = 389 MPa; R_m = 483 M

Specimen:

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

Loading mode:

axial; R = 0; 25Hz

Limiting no. of cycles:

2 · 10⁶

Endurance limit:

129 MPa from staircase with 20 specimens

Reference:

C.M. Sonsino: Ermittlung anwendungsrelevanter Kenngrößen für Sintermetalle. LBF-Report No. FB-158; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1981

Stress amplitude:	135	150	170	MPa
Cycles to failure:	287,720	51,757	6,807	· 1000
	596,994	68,544	12,882	
	841,337	75,853	13,963	
	1954,204	85,108	14,520	
		90,985	25,821	
		95,933	26,852	
		115,603		
		297,831		
		457,057		