

Material: Fe-2 % Cu-0.76% C; iron: water atomised copper: < 150 μm;

sintering: 1120 °C, 30 min, 90 %N2 + 10 % H2

heat treatment: cooling rate = 0.8 °C/s

density: 7.02 g/cm³ mech. properties: -

Specimen: smooth, Kt = 1.0; similar to ISO 3928, cross-section 7 x 7 mm; chamfered; surface as sintered

Loading mode: plane bending, R = -1; 28-30 Hz

Limiting no. of cycles: 2 · 10⁶ Endurance limit: 208 MPa

Reference: H. Ericsson: Influence of Notches on Fatigue Behaviour of PM Steels; Master? s Thesis,

Lulea University of Technology, 2003

Stress amplitude:	195.6	197.7	205	205.3	205.9	206	214.4
Cycles to failure:	2000.000	2000.000	2000.000	908,017	2000.000	2000.000	361,203
	2000.000			919,291			463,147
							782,410

214.5	215.7	224.8	244.1	254.1	282.6	MPa
2000.000	360,316	258,185	171.21	h97.271*	49,971	- 1000

*retested run-ou