

Material: Fe-2 % Cu - 0.8 % C; iron: water atomised

copper: - 100 mesh, carbon: graphite

sintering: 750 °C, 20 min, 90 % N2 + 10 % H2; repressed; 1120 °C, 30 min, endogas with controlled carbon

heat treatment: -

density: 7.38 g/cm3; double pressed, double sintered

mech. properties: -

Specimen: smooth, K_t = 1; ISO 3928; surface as sintered¹

Loading mode: axial; R = -1Limiting no. of cycles: $2 \cdot 10^6$

Endurance limit: 213 MPa¹ (215 MPa this evaluation)

Reference: A. Bergmark: Materialdata för PM-Stäl med Varierade Ytor och Geometrier; Jernkontorets

Forskning Report, Series D, No. 763; Jernkontoret, Stockholm, 1999

Stress amplitude:	200	210	220	230	MPa
Cycles to failure:	2000.000	201.774	413.459	425.920	- 1000
	2000.000	1063.202	462.397	469.950	
		2000.000	564.523		
		2000.000	1266.490		
		2000.000	2000.000		
			2000.000		

With burs removed by milling, a staircase test with 10 specimens gave an endurance limit of 201 MPa.