



SAFD - Höganas Intern Fig 1 Dichte 6.8.csr

Material: Fe-2 % Cu-0.8 % C
 iron: water atomised
 copper: < 150 μm ,*
 sintering*: 1120 °C, 30 min, 90 % N_2 + 10 % H_2
 heat treatment: -
 density: 6.8 g/cm³
 mech. properties: -

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

Loading mode: plane bending, $R = -1$;

Limiting no. of cycles: $2 \cdot 10^6$

Endurance limit: 199 MPa

Reference: Höganas AB; internal investigation 2003/93

*assumed from data sheet Fe-2 % Cu-0.8 % C, density 7.1 g/cm³

Stress amplitude:	190	191	198	199	200	201	210	221	250	252	281
Cycles to failure:	2000.000	3681.290	2328.091	385.478	610.942	512.861	711.214	307.610	84.918	69.502	25.410
					946.237						27.353
					2000.000						
					2760.578						