



Material:	Fe-2 % Cu-0.76% C; iron: water atomised sintering: 1120 °C, 30 min, 90 % N <sub>2</sub> + 10 % H <sub>2</sub> heat treatment: cooling rate ≈ 0.8 °C/s density: 7.02 g/cm <sup>3</sup> mech. properties: -										
Specimen:	notched, K <sub>t</sub> = 1.38; rectangular bar 110 x 11 x 7 mm; lateral notches with R = 3 mm, cross-section 7 x 7 mm; chamfered; surface as sintered										
Loading mode:	plane bending, R = -1; 28-30 Hz										
Limiting no. of cycles:	2 · 10 <sup>6</sup>										
Endurance limit:	162 MPa (163 MPa this evaluation)										
Reference:	H. Ericsson: Influence of Notches on Fatigue Behaviour of PMS steels; Master's Thesis, Luleå University of Technology, 2003										
Stress amplitude:	147	154	159	160	166	167	173	177	191	207	MPa
Cycles to failure:	2000.000	862,979	1035.142	2000.000	763,836	2000.000	866,962	430,527	h161.065*	90,991	· 1000
		2000.000	2000.000		841,395	2000.000					
					1355.189						

\*retested run-out