

Fe-1.5 % Cu-0.6 % C; iron: water atomised Material:

> carbon: not specified; sintering: 1120 °C, 30 min, 70 % N2 + 30 % H2 heat treatment: 840 °C, 1h; oil 60 °C; 430 °C, 1h

density: 7.1 ± 0.05 g/cm³

mech. properties: H = 312 HB 2.5/62.5; R_{p0.2} = 773 MPa; R_m = 810 MPa

smooth, K, = 1.0; ISO 3928; surface as sintered Specimen:

plane bending, R = 0; 25 Hz Loading mode: Limiting no. of cycles:

Endurance limit:

 $2 \cdot 10^{6}$

225 MPa (decided)

Reference: C.M. 5 onsino: 5 chwingfestigkeit von verschiedenen 5 interstählen und Bemessungskriterien für gesinterte Bauteile; LBF-Report No. FB-170; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1984

Stress amplitude: 222 232 241 245 251 270 MPa Cycles to failure: 359,724 2000.000 106,162 2000.000 134,267 60,809 1000 2000.000 73,277 77,978