



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

carbon: not specified; sintering: 1120 °C, 30 min, 70 % N<sub>2</sub> + 30

heat treatment: -

density: 7.19 g/cm<sup>3</sup>

mech. properties: H = 142 HV10; R<sub>p0.2</sub> = 389 MPa; R<sub>m</sub> = 483 M

Specimen: rectangular bar 90 x 11 x 5, central hole Ø 2 mm, hole compacted, K<sub>t</sub> = 2.0; surface as sintered

Loading mode: plane bending; R = 0; 25Hz

Limiting no. of cycles: 2 · 10<sup>6</sup>

Endurance limit: 101 MPa (extrapolated)

Reference: C.M. Sonsino: Ermittlung anwendungsrelevanter Kenngrößen für Sintermetalle. LBF-Report No. FB-158: Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1981

|                    |         |         |         |        |
|--------------------|---------|---------|---------|--------|
| Stress amplitude:  | 119     | 129     | 143     | MPa    |
| Cycles to failure: | 387,231 | 247,155 | 141,244 | - 1000 |
|                    |         | 301,280 | 161,797 |        |
|                    |         | 311,867 |         |        |
|                    |         | 322,827 |         |        |
|                    |         | 328,073 |         |        |