



SAFD - Blatt 69 FeCuC-R=0.05r

Material: Fe-1.5 % Cu-0.6 % C; iron: water atomised copper;
carbon: not specified; sintering: 1120 °C, 30 min, 70 % N₂ + 30
heat treatment: -
density: 7.19 g/cm³
mech. properties: H = 142 HV10; R_{p0.2} = 389 MPa; R_m = 483 M

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

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

Limiting no. of cycles: 2 · 10⁶

Endurance limit: 127 MPa (estimated)

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

Stress amplitude:	160	MPa
Cycles to failure:	212,310	- 1000
	266,054	
	283,120	
	294,422	
	306,175	