

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

carbon: not specified; sintering: 1120 °C, 30 min, endogas plus propane, reheated to 1120 °C in N2, powder forged

heat treatment: density: 7.76 g/cm<sup>3</sup>

mech. properties: H = 272 HB 2.5/187.5; Rp0.2 = 587 ÷ 598 MPa; Rm = 851 MPa

smooth, Kt = 1.0; similar to ISO 3928; surface machined

Loading mode: axial, R = -1; 25 Hz

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

Material:

Specimen:

Endurance limit:

292 Mpa (decided)

Reference: C.M. Sonsino: Einfluss sintertechnischer Grenzen für die Herstellung von schwingbeanspruchten Bauteilen aus

Sinterstahl; LBF-Report No. FB-184; Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1989

Stress amplitude:	228	232	236	240	252	323*	330*	347*	362	402	MPa
Cycles to failure:	2964.627	2964.627	2964.627	2964.627	2964.627	403,618 571,439	100,224 617,974	503,466	137,395 252,912	65,761 68,072	· 1000
									266,054 294,422	71,609 94,182	
									349,921	103,746	

<sup>\*</sup> gripping fracture