

Fe-1.5 % Cu carbonitrided; iron: water atomised WPL 150 (Mannesmann) Material: copper:

> heat treatment: 920 °C, 3.5 h, endogas with 0.17 % CO2 + NH3; oil 60 °C; no tempering mentioned; case depth: 0.4 - 1 mm

density: 7.1 ± 0.05 g/cm3

mech. properties: H = 582 HV10; R_{p0.2} = -; R_m = 770 MPa

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

Loading mode: axial, R = 0; 25 Hz $2 \cdot 10^{5}$

Limiting no. of cycles:

Endurance limit: 164 MPa (decided)

Reference: C.M. Sonsino: Schwingfestigkeit von verschiedenen Sinterstählen und Bemessungskriterien für gesinterte

Bauteile: I BF-Report No. FB-170: Fraunhofer-Institut für Betriebsfestigkeit, Darmstadt, 1984

Stress amplitude:	142	148	156	200	289	MPa
Cycles to failure:	2000.000	2000.000	2000.000	140,595	15,275	- 1000
				279,879	18,364	
				303,368	25,059	
				397,164		
				444,601		
				462,349		
				535,722		
				578,056		
				685,441		