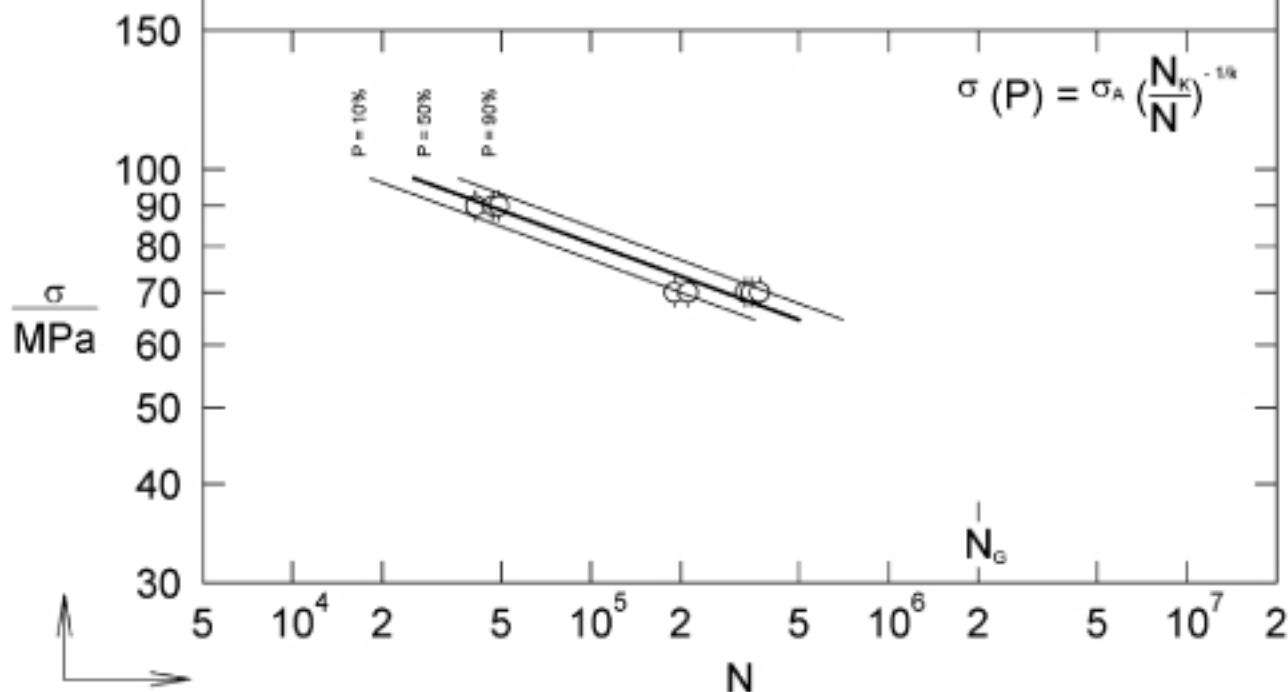


○ Failed test-pieces    ● Unfailed run-outs

$\sigma$ -logN-Normalverteilung	HCF: $\lg N =$	a	+	k	$\lg \sigma$	$N_K$	LLF: $\sigma_A$
P = 10% :	$\lg N =$	18.59870	+	-7.20877	$\lg \sigma$	-	0.00
P = 50% :	$\lg N =$	18.74866	+	-7.20877	$\lg \sigma$	-	0.00
P = 90% :	$\lg N =$	18.89482	+	-7.20877	$\lg \sigma$	-	0.00



SAFD - Blatt 43 FeCuC-Rm-1.csv

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 % H<sub>2</sub>

heat treatment: -

density: 6.60 g/cm<sup>3</sup>

mech. properties: H = 106 HV10; R<sub>p0.2</sub> = 263 MPa; R<sub>m</sub> = 336 Mpa

Specimen: rectangular bar 90 x 11 x 5, central hole ∅ 2 mm, hole compacted, K<sub>t</sub> = 2.8; surface as sintered

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

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

Endurance limit: 53 MPa (extrapolated)

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

Stress amplitude:	70	90	MPa
Cycles to failure:	190,095	41,018	· 1000
	211,821	46,986	
	330,347	49,201	
	345,915		
	368,104		