

material no.: 1.4876
 UNS no.: N08800
 designation: Alloy 800

CHEMICAL REQUIREMENTS IN (%)

	ASTM B408/564	VdTÜV Werkstoffblatt 41
Ni	30,0 - 35,0	30,0 - 34,0
Co, max.		1,0
Ni + Co		30,0 - 34,0
Cr	19,0 - 23,0	19,0 - 23,0
Fe, min.	39,5	
Mn, max.	1,5	1,50
C, max.	0,10	0,04 - 0,10
Cu, max.	0,75	0,75
Si, max.	1,0	1,0
S, max.	0,015	0,020
Al	0,15 - 0,60	0,15 - 0,60
Ti	0,15 - 0,60	0,15 - 0,60
Al + Ti, max.		0,7* bzw. 1,0
P, max.		0,030

* design temperature 600 - 700 °C

MECHANICAL PROPERTIES

solution annealed

	bar ASTM B408	forging ASTM B564	bar / forging
R _m (MPa)	≥ 517		450 - 700
R _{p0,2} (MPa)	≥ 207		≥ 170
R _{p1,0} (MPa)			≥ 200
A (%)	≥ 30		l ≥ 35, q/t ≥ 30
Av (J)			l ≥ 160, q/t ≥ 80
grain size			≤ 5

annealed

		bar / forging
R _m (MPa)		500 - 750
R _{p0,2} (MPa)		≥ 210
R _{p1,0} (MPa)		≥ 240
A (%)		l ≥ 35, q/t ≥ 30
Av (J)		l ≥ 160, q/t ≥ 80
grain size		≤ 5

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