

material no.: 2.4856
 UNS no.: N06625
 designation: Alloy 625

CHEMICAL REQUIREMENTS IN (%)

	ASTM B446/564	VdTÜV Werkstoffblatt 499	DIN 17744
Ni, min	58,0	Bal.	58,0
Fe, max.	5,0	5,0	5,0
Mn, max.	0,50	0,50	0,50
C, max.	0,10	0,030	0,10
Si, max.	0,50	0,40	0,50
S, max.	0,015	0,010	0,015
Cr	20,0 - 23,0	21,0 - 23,0	20,0 - 23,0
Al, max.	0,40	0,40	0,40
Ti, max.	0,40	0,40	0,40
Nb + Ta	3,15 - 4,15	3,2 - 3,8	3,15 - 4,15
Mo	8,0 - 10,0	8,0 - 10,0	8,0 - 10,0
P, max.	0,015	0,010	0,020
Co, max.		1,0	1,00
Cu, max.			0,50

MECHANICAL PROPERTIES
annealed

bar	forging	forging	bar
ASTM B446	ASTM B564	D ≤ 160 mm	D ≤ 100 mm DIN 17752
D ≤ 102 mm			

R _m (MPa)	≥ 827	760 - 1000	≥ 830
R _{p 0,2} (MPa)	≥ 414	≥ 380	≥ 415
R _{p 1,0} (MPa)			≥ 445
A (%)	≥ 30	≥ 35	≥ 30
Av (J)		≥ 100	
hardness (HBW 2,5/62,5)			max. 240

annealed

bar	forging	forging	bar
102 ≤ D ≤ 254 mm		D > 160 mm	100 < D ≤ 250 mm DIN 17752

R _m (MPa)	≥ 758	730 - 920	≥ 760
R _{p 0,2} (MPa)	≥ 345	≥ 330	≥ 345
R _{p 1,0} (MPa)			≥ 375
A (%)	≥ 25	≥ 35	≥ 30
Av (j)		≥ 44	
hardness (HBW 2,5/62,5)			max. 240

solution annealed

bar	bar
ASTM B446	D ≤ 250 mm DIN 17752

R _m (MPa)	≥ 689	≥ 690
R _{p 0,2} (MPa)	≥ 276	≥ 275
R _{p 1,0} (MPa)		≥ 305
A (%)	≥ 30	≥ 30

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