

Alloy 625

Alloy 625 combines nickel chromium and molybdenum, giving high strength (from room temperature to 816°C), ease of fabrication, and excellent corrosion resistance. Alloy 625 is particularly useful in situations where oxidation resistance and avoidance of pitting is required. In the annealed condition, Alloy 625 is fully austenitic and is suitable for machining. Alloy 625 can be hot or cold worked (although as it does work harden, intermediate heat treatments are advisable), formed and welded.

AI Materials stock Alloy 625 in the annealed condition to provide good strength and hardness, and typical applications are where contact with sea water and other harsh chemical environments and high mechanical stresses apply.

We stock the following Specifications: ASTM B446, UNS N06625, BS3076:NA21, AMS 5666, NACE MR-01-75, WERKSTOFF 2.4856

In the following Sizes:

6 mm	8 mm	10 mm	12.7 mm	15.87 mm
19.05 mm	25.4 mm	28.575 mm	31.75 mm	34.925 mm
38.1 mm	40 mm	44.45 mm	50.8 mm	53.975 mm
57.15 mm	63.5 mm	69.85 mm	76.2 mm	88.9 mm
94 mm	101.6 mm	114.3 mm	120 mm	127 mm
139.7 mm	150 mm	152.4 mm	159 mm	160 mm
165.1 mm	177.8 mm	203.2 mm	220 mm	260 mm

AI Materials can also supply rings and bored bar – please contact us with your requirements.

Technical data – nominal percentages:

	C	Mn	Si	P	S	Cr	Ni	Mo	Ti	Al	Co	Fe	Nb	
Min	-	-	-	-	-	20.0	58.0	8.00	-	-	-	-	0.15	%
Max	0.10	0.50	0.50	0.015	0.015	23.0	Bal	10.0	0.40	0.40	1.0	5.0	4.15	%

Mechanical data

Tensile Strength, min		Yield Strength (0.2% offset) min		Elongation in 4X Dia min %	Brinell Hardness Number (HB)	Rockwell C Hardness (HRC)
KSI	MPa	KSI	MPa	%	Max	Max
120	827	60	413	25	331	35