Additive Metal Alloys, Ltd
427 West Dussel, #105
Maumee, Ohio 43537
800.687.6110 Phone
419.865.9919 Fax
additivemetalalloys.com
sales@additivemetalalloys.com

AM 625 Data sheet

Inconel 625 is a nickel-base alloy used both for its high strength and outstanding aqueous corrosion resistance. The strength of alloy 625 is primarily a solid solution effect from molybdenum and columbium.

Alloy Highlights

High creep-rupture strength
Oxidation resistant to 1800°F
Outstanding resistance to chloride pitting
Immune to chloride ion stress corrosion cracking

Typical Applications

Gas Turbine Components
Jet Engine Exhaust systems
Chemical Processing Equipment
Seawater components

Mechanical Properties (as Sintered)		
Test	Horizontal	Vertical
Tensile Strength	145 +/-6 ksi	130 +/-8 ksi
Yield Strength	106 +/-5 ksi	90 +/-6
Elongation at break	35 +/-5 %	42 +/-5 %
Hardness (HRC)		30
Density (lb/in^3)		0.305
E Modulus (Msi)		20 +/-3

Chemistry		
Element	Range (%)	
	Min	Max
Al		0.4
C		0.1
Co		1.0
Cr	20.0	23.0
Cb+Ta	3.15	4.2
Fe		5.0
Mn		0.5
Mo	8.0	10.0
Ni	Balance	
P		0.015
S		0.015
Si		0.5
Ti		0.4

Applicable Chemistry Specifications

AMS 5599	AMS 5666	AMS5837
ASME SB 443 GR 1	ASME SB 446 GR 1	NACE MR0175-3
EN 2.4856	ISO 15156-3	UNS N06625
ASTM B 443 GR 1	ASTM B 446 GR 1	