PRODUCT DATASHEET

625

Grade

Alloy 625 (UNS NO6625, ASTM B446, ASTM B564)

Type

Annealed Nickel Chromium alloy.

Composition	
Element	**Weight%**
Carbon	0.1 max
Silicon	0.5 max
Manganese	0.5 max
Phosphorus	0.015 max
Sulphur	0.015 max
Molybdenum	8 - 10
Chromium	20 - 23
Nickel	58 min
Aluminium	0.4 max
Titanium	0.4 max
Manganese	0.5 max
Niobium + Tantalum	3.15 - 4.15

Notes: The grade has excellent corrosion resistance

Mechanical Propeties

Annealed and where lower hardness is required Solution Annealed. Though not usually required this grade can be aged. Typical properties below are in the Annealed condition.

Property	Values
0.2% Yeild Strength	60 KSI min (414 MPA min)
Ultimate Tensile Strength	120 KSI min (827 MPA min)
Elongation	20
Reduction of area	35% min
Charpy Impact Toughness	27 min J at -60°C
Hardness	35 HRC max

Notes: Nickel-Chromium alloy with generally 3.5% Niobium and 9% Molybdenum.

Maximum hardness shown is based on compliance with NACE MR0175 (2003).

Grade has relatively low strength but very high corrosion resistance, excellent sub zero impact properties.

Used extensively for applications such as fittings, valves, gaskets, tubing. Also used for corrosion resistant weld overlays.