PRODUCT DATASHEET

925

Grade

Alloy 925 (UNS NO9925, API 6A CRA 1st Edition Addendum 3)

Type

Solution annealed age hardened Nickel-Chromium-Iron based alloy.

Composition	
Element	**Weight%**
Carbon	0.025 max
Silicon	0.35 max
Manganese	1 max
Phosphorus	0.02 max
Sulphur	0.003 max
Molybdenum	2.5 - 3.5
Chromium	19.5 - 22.5
Nickel	42 - 46
Aluminium	0.1 - 0.5
Titanium	1.9 - 2.4
Manganese	1 max
Niobium	0.08 - 0.5
Copper	1.5 - 3

Mechanical Propeties

Solution annealed followed by age hardening

Property	Values
0.2% Yeild Strength	110 KSI min (758 MPA min)
Ultimate Tensile Strength	140 KSI min (965 MPA min)
Elongation	18
Reduction of area	≤10" 25% min / >10" 20%
Charpy Impact Toughness	< 3" 47J ave / 43J single / 0.38mm lats (L) ≥3" - 10" 47J ave /43J single / 0.38mm lats (T) >10" 47J ave / 43J single / 0.38mm lats (T) all at -60°C
Hardness	38 HRC max

Notes: Grade has very high strength and excellent corrosion resistance and so is used in a range of severe corrosive environments for applications such as hangers, gates and stems.

Can be used as a direct alternative to Nickel 718 in some applications.

Maximum hardness shown is based on compliance with NACE MR0175 / ISO 15156.