HandyTube
Performance That's Seamless.™

Alloy I625

Alloy Designation: (UNS N06625)

Specifications: ASTM B444 / ASTM B829

Typical Size Ranges: OD (.02"–1.00")

Available Product Forms:

Annealed to Full Hard, in Coiled or Straight form

General Description and Applications:

With its wide range of service temperatures, excellent corrosion resistance, and noteworthy strength, I625 is an alloy that is valuable for chemical processing, marine, and power generation applications. This nickel, chromium, and molybdenum containing alloy can be used at temperatures up to 1100 degrees fahrenheit for prolonged periods of time.

Commitment to Quality:

ISO 9001-CERTIFIED

Lloyd's Register LRQA

SHIPBUILDING CERTIFICATIONS

DNV

Lloyd's Register Marine

ABS

Bureau Veritas

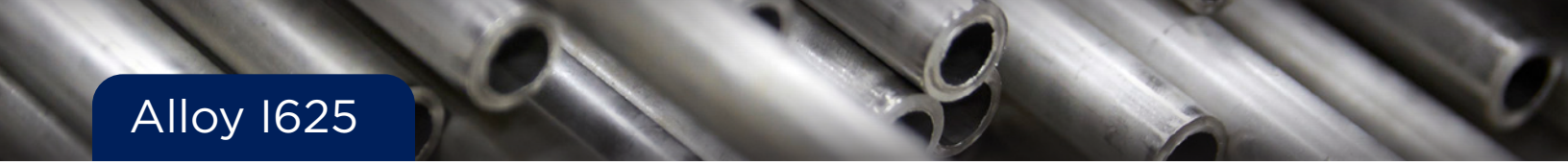
HIGH PRESSURE APPLICATIONS

TÜV SÜD AD-2000-Merkblatt-W0

PED 2014 / 68 / EU

Plant & Headquarters
124 Vepco Blvd.
Camden, DE 19934

sales@handytube.com
+1 (302) 697-9521
www.HandyTube.com



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Chemical Properties as per Specs:

CHEMICAL COMPOSITION BY WEIGHT PERCENT															
Ni	**Cr**	**Fe**	**Mo**	**Al**	**Ti**	**Nb**	**Co**	**Ta**	**Mn**	**Cu**	**N**	**C**	**S**	**Si**	**P**
58.0 Min	20.0 - 23.0	5.0 Max	8.0 - 10.0	0.4 Max	0.4 Max	1.0 Max	3.15 - 4.15	-	0.50 Max	-	-	.010 Max	0.150 Max	0.80 Max	0.015 Max

PREN CALCULATION AND NUMBER:

- PREN = Cr + 3.3(Mo +0.5W) + 16N
- MIN PREN = 20 + 3.3(8) = 46.4
- MAX PREN = 23 + 3.3(10) =56
- PREN Range: 46.4 - 56

MECHANICAL PROPERTIES	
Ultimate Tensile Strength	120 ksi Minimum (650.2 MPa)
Yield Strength	60 ksi Minimum (299.9 MPa)
% Elongation to Failure	30% Minimum
Hardness	97 HRB Max
Young's Modulus	30.1x10^6 ksi (207.5 GPa)

PHYSICAL PROPERTIES	
Density	0.305 lb/in^3 or 8.44 g/cm^3
Melting Point	2350 – 2460°F or 1290 – 1350°C
Coefficient of Thermal Expansion	7.3 (µin/in-°F)
Specific Heat	0.098 BTU/lb-°F
Thermal Conductivity	9.8 (W/m.K)
Electrical Resisitivity	129 µΩcm

ANNEALING SUGGESTION:

- I625 is best annealed between the temperatures of 1800-1950 degrees Fahrenheit or 982-1066 degrees Celsius.