Stainless Steel 630 H900

Technical Datasheet

Key Features

- Good corrosion resistance
- High mechanical strength
- Excellent ductility

Common Applications

- Surgical instruments
- Aerospace, chemical, petrochemical and general metalworking applications

Material Description

Stainless Steel 630 in the H900 condition, also known as 17-4 PH H900, refers to the material after being precipitation hardened at 900ºF (482ºC). In this state, it exhibits high strength, excellent toughness, and good corrosion resistance. Stainless Steel 630 H900 is widely used in applications requiring superior mechanical properties, such as aerospace components, high-strength fasteners, and shafts subjected to heavy loads. Its combination of high strength and corrosion resistance makes it suitable for use in harsh environments where both properties are crucial.

Chemical Composition (%)

	C	Cr	Cu	Fe	Mn	Nb + Ta	Ni	P	Si	S	
Min.		15	3.0	69.91		0.15	3.0				
Max.	0.070	17.5	5.0	78.85	1.0	0.45	5.0	0.040	1.0	0.030	

Mechanical Properties

Ultimate Tensile Strength	197,000 – 203,000 PSI
Tensile Yield Strength	1,680,000 PSI
Hardness	Rockwell C38 – 42
Elongation at Break	10 - 12%

Physical Properties

Density	0.280 lb/in³ (7.75 g/cm³)
Thermal Conductivity	18.3W/m.K
Modulus of elasticity	28,600 KSI (197 GPa)
Melting Point	2,550-2,640ºF (1,400-1,450 ºC)

Technical Assistance

Our knowledgeable staff, supported by our in-house team of expert metallurgists and engineers, is ready to assist you with any technical inquiries.

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