Stainless Steel 630 H1150

Technical Datasheet

Key Features

- Good corrosion resistance
- High mechanical strength
- Excellent ductility

Common Applications

- Surgical instruments
- Aerospace, chemical, petrochemical
- General metalworking applications

Material Description

Stainless Steel 630 in the H1150 condition, also known as 17-4 PH H1150, refers to the material after being precipitation hardened at 1150°F (621°C). In this state, it offers a balance of high strength, excellent toughness, and good corrosion resistance. Stainless Steel 630 H1150 is commonly used in applications requiring a combination of strength and toughness, such as aerospace components, industrial machinery, and oil and gas equipment. Its properties make it suitable for use in environments where resistance to corrosion and high mechanical stresses are required.

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	168,000 – 197,000 PSI
Tensile Yield Strength	123,000 – 173,000 PSI
Hardness	Rockwell C32 – 38
Elongation at Break	11 - 13%

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	2,550-2,640°F (1,400-1,450 °C)

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.

InstaVoxel™ - On-Demand Manufacturing Expert

859 Willard Street Suite 400, Quincy MA 02169 USA
+1 (617) 302-1629 | info@instavoxel.com
www.instavoxel.com

InstaVoxel's quality control system is ISO-9001 certified, and all our partners hold relevant certifications.

ISO 9001:2015

UKAS MANAGEMENT SYSTEMS 0142