

Chemical Composition

C ≤%	Si ≤%	Mn ≤%	P ≤%	S ≤%
0.07	1.00	1.00	0.025	0.025
Cr %	Ni %	Nb ≤%	Cu ≤%	
15.0-17.5	3.00-5.00	0.15-0.45	3.00-5.00	

Description

1.4542 / AISI 630 / 17-4PH® is a martensitic chromium-nickel-stainless steel, stabilized with niobium.

Special Properties

Martensitic precipitation hardenable chromium-nickel-copper steel possessing high strength and toughness. Further strength increments can be obtained by cold forming, followed by a precipitation hardening treatment.

Steel Grade

AISI	UNS	Material No.	EN Designation
630	S17400	1.4548	XSCrNiCuNb17-4-4

Mechanical Properties 20 C

Hardness HB 30 ≤ HB	0.2% Yield strength R _p ≥ N/mm ²	Tensile strength R _m N/mm ²	Elongation A ₅ ≥ %	Modulus of elasticity kN/mm ²
360	1000	1070-1270	10	200

Physical Properties 20°C

Density g/cm ³	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm ² /m
7.8	500	16	0.71

Suitable Welding Filler Materials

1.4542

Application

Aircraft industry, high strength corrosion resistant parts

Available Forms for 17-4PH

Sheets/Coils	Bars	Tubes / Pipes	Wires	Fittings	Forged / cast parts	Finished part (drawing)
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