

Brand name | 17-4PH®

Standards	Material No.	EN Designation	AISI/SAE	UNS
	1.4542	X5CrNiCuNb16-4	630	S17400

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.

Chemical Composition	C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
	≤ 0.07	0.70	1.50	0.04	0.015
	Cr %	Mo %	Ni %	Cu %	Nb %
	15.0-17.0	≤ 0.60	3.00-5.00	3.00-5.00	5xC

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 1.4542 / 17-4PH®

