

Technical Data:

Product Description

17-4PH stainless steel is a precipitation-hardening martensitic stainless steel that contains approximately 17% chromium and 4% nickel as its major alloying elements. It offers an excellent combination of high strength, good corrosion resistance, and ease of machinability. 17-4PH is widely used for metal injection molded parts because it can achieve high strength and hardness through heat treatment while retaining good corrosion resistance and excellent mechanical properties.

Features and Applications

Grade	Features	Applications	
17-4PH	Annealed	Good formability, corrosion resistance	Aerospace components, medical instruments
17-4PH	H900	High tensile strength, exceptional corrosion resistance	Structural components, industrial machinery
17-4PH	H1025	High strength, impact resistance	Gears, valves, automotive components
17-4PH	H1150	Balanced strength, corrosion resistance	Aerospace structures, oil and gas components
17-4PH	TH1050	High tensile strength, excellent toughness	Firearms components, sporting equipment

Physical and Mechanical

Alloys	Status	Tensile Strength	Yield Strength	Impact Strength	Hardness	Young's Modulus	Poisson's Ratio	Elongation	Density
		Mpa	Mpa	J	HRB	Gpa	Ratio	% in 25.4 mm	g/cm ³
17-4PH	Condition A (Annealed)	850	620	50	90	200	0.27	25	7.75
17-4PH	H900	1150	1050	30	34	200	0.27	10	7.75
17-4PH	H1025	1350	1200	25	36	200	0.27	8	7.75
17-4PH	H1150	1500	1400	15	40	200	0.27	3	7.75
17-4PH	TH1050	1300	1100	35	35	200	0.27	12	7.75

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway

