



PH Grade Alloys (Precipitation Hardening)

17-7ph

This group of alloys have high corrosion resistance, similar to austenitic alloys. They function similarly to the aluminium age hardening alloys, which can be heat-treated to improve strength through the formation of a precipitate.

Characteristics

Hardenable by precipitation hardening techniques

Typical end uses

Because of high strength, ease of forming and good elevated temperature properties, PH Grade alloys are used in aircraft and aerospace applications, also in springs and other applications in which creep properties are important.

Nominal Chemical Composition					
Stainless Steel	Cr	Al	Mn	Ni	C
17-7ph	12.6	1.1	1 max.	7	0.09

Applicable Specifications			
Stainless Steel	ASTM	AMS Spec No.	Werkstoff Number
17-7ph	A693	5528	1.4568

Mechanical Properties				
Stainless Steel	Temper	Tensile Strength	Yield Strength	Elongation (% in 50.8mm)
17-7ph	Annealed	1034M/mm ² max.	448N/mm ²	20% min.

Physical Properties			Thermal Properties	
Stainless Steel	Density	Modulus of Elasticity	Thermal Conductivity	Coefficient of Expansion 0-100°C x 10 ⁶ K ⁻¹
17-7ph	7.25 gcm ³	203 Gpa	16.4 Wm ⁻¹ K ⁻¹	11

Electrical Properties	
Stainless Steel	Electrical Resistivity uOhm cm
17-7ph	80

If you have any questions or to discuss your requirements, please contact us, the details are on our website:

