

Kormax 17-4 PH Stainless Steel

Material Data Sheet

17-4 PH (Grade 630 / UNS S17400) is a martensitic precipitation-hardening stainless steel, alloyed with chromium, nickel and copper. Strength is developed through heat treatment rather than cold work, allowing engineers to select the strength/toughness balance the application requires.

Chemical Composition (%)

Element		
Iron	Fe	Balance
Chromium	Cr	15.00 - 17.50
Nickel	Ni	3.00 - 5.00
Copper	Cu	3.00 - 5.00
Manganese	Mn	1.00 max
Silicon	Si	1.00 max
Carbon	C	0.070 max
Phosphorus	P	0.040 max
Sulfur	S	0.030 max
Niobium + Tantalum	Nb + Ta	0.15 - 0.45

Mechanical Properties

	Metric Values	Imperial Values
Tensile Strength Min	930 N/mm ²	134,900 psi
Yield Strength Min	725 N/mm ²	105,000 psi
Elongation Min	16%	16%
Hardness Max	302 HB	302 HB
Specific Gravity	7.75 g/cm ³	

Standard stock condition: H1150 (ex-stock)

Other heat-treat conditions are available on indent, with mechanical properties as follows:

Condition	Tensile Strength Min	Yield Strength Min	Elongation Min	Availability
A (solution annealed)	1,030 MPa / 149,000 psi	725 MPa / 105,000 psi	12%	Indent
H900	1,310 MPa / 190,000 psi	1,170 MPa / 170,000 psi	10%	Indent
H925	1,170 MPa / 170,000 psi	1,070 MPa / 155,000 psi	10%	Indent
H1025	1,070 MPa / 155,000 psi	1,000 MPa / 145,000 psi	12%	Indent
H1075	1,000 MPa / 145,000 psi	860 MPa / 125,000 psi	13%	Indent
H1100	965 MPa / 140,000 psi	795 MPa / 115,000 psi	14%	Indent
H1150	930 MPa / 134,900 psi	725 MPa / 105,000 psi	16%	Ex-stock

Standard reference: ASTM A564 Type 630 / AMS 5643. Confirm exact minimums against the current standard or mill certificates.

The technical data given in this sheet corresponds to our current state of knowledge and should not be construed as an agreement or guarantee regarding certain properties of our products. The decision on the suitability of a particular material for a specific application is up to the user. We reserve the right to modify the given data. Errors of the given data are reserved. The document was produced by machine and is valid without signature.