

AMS5643 / AMS5604 / AMS5622 - 17/4PH

Alloy Designations

17-4PH has similarities to the following standard designations and specification

AMS 5604

AMS 5622

AMS 5643

UNS S17400

W.Nr 1.4548

Chemical Properties

Element	Chemical Composition %
Carbon (C)	0.00 - 0.07
Silicon (Si)	0.00 - 1.00
Manganese (Mn)	0.00 - 1.00
Phosphorous (P)	0.00 - 0.040
Sulphur (S)	0.00 - 0.030
Chromium (Cr)	15.00 - 17.50
Molybdenum (Mo)	0.00 - 0.50
Nickel (Ni)	3.00 - 5.00
Columbium (Cb)	0.00 - 0.45
Copper (Cu)	3.00 - 5.00
Iron (Fe)	Balance

Description

17-4 is a precipitation hardenable stainless and can be supplied single melted (AMS 5643) or Vacuum

Arc Remelted (AMS 5622). It is medium to high strength material achieved through appropriate ageing

treatments. It also has good corrosion resistant properties.

Mechanical Properties

Condition	0.2% Proof Stress (MPa Min)	Tensile Strength (MPa Min)	Elongation (% Min)		Hardness (HB)
			Longitude / Transverse	Longitude / Transverse	
H900	1172	1310	10 / 6	35 / 20	388 - 444 max
H1000	1069	1172	10 / 7	38 / 25	375 - 429 max
H1025	1000	1069	12 / 8	45 / 32	331 - 401 max
H1050	862	1000	13 / 9	45 / 33	311 - 375 max
H1100	793	965	14 / 10	45 / 34	302 - 363 max
H1150	724	931	16 / 11	50 / 35	277 - 352 max

Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product

and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

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