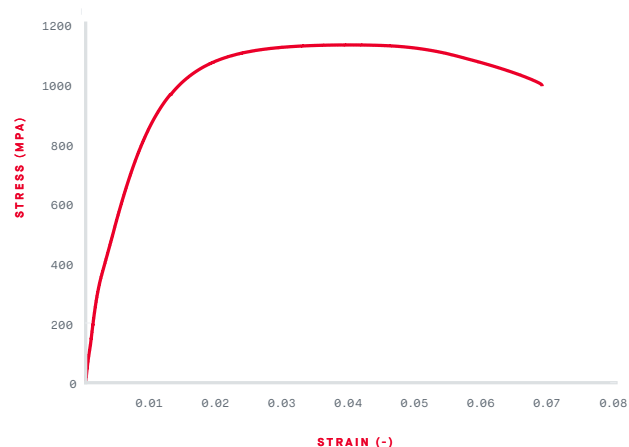


17-4 PH stainless steel

Characterized by its combination of strength, hardness, and corrosion resistance, 17-4 PH is a stainless steel ideal for a variety of applications—including tooling, molds, and production parts. In its as-sintered state, 17-4 PH material properties consistently meet industry standards.¹



Composition %

C	0.07 (max)
Cr	15.5 - 17.5
Ni	3 - 5
Cu	3 - 5
Mn	1.0 (max)
Nb + Ta	0.15 - 0.45

Other standard designations

UNS S17400
EN 1.4542
ISO 4542-174-00-1

Mechanical properties²

	standard	Studio System™ as-sintered	ASTM B883 as-sintered (min)	Wrought ³ for reference
Yield strength (MPa)	ASTM E8M	660	650	980
Ultimate tensile strength (MPa)	ASTM E8M	1042	795	1060
Elongation at break	ASTM E8M	8.5%	4%	8%
Young's modulus (GPa)	ASTM E8M	195	190 (typ)	200
Hardness (HRC)	ASTM E18	37	-	35
Density (relative)	ASTM B311	98%	-	100%

¹ per ASTM B883 minimum values.

² Tensile properties tested at an A2LA ISO 17025-certified, third-party laboratory.

³ Grupo Lucefin. (2018). *Precipitation Hardening Stainless Steel*.
http://www.lucefin.com/wp-content/files_mf/1.4542pha63062.pdf

End-use material performance is impacted (+/-) by certain factors including but not limited to part geometry and design, application and evaluation conditions, etc.

