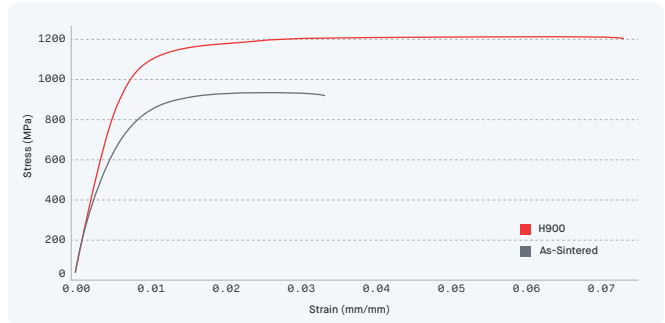


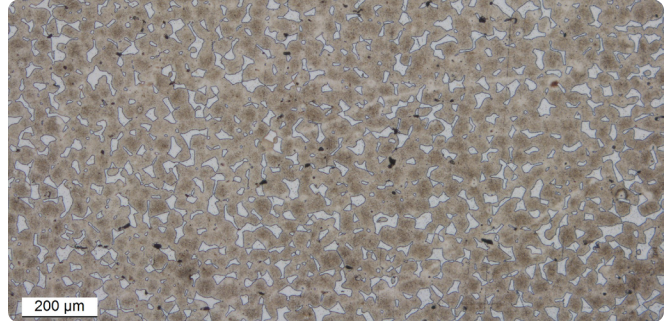
[Material Data Sheet]

17-4 PH Stainless Steel



COMPOSITION %

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



MECHANICAL PROPERTIES ²

	Standard	Shop System™ As-Sintered	Shop System™ H900 Heat Treat	MIM - MPIF 35 min ² As-Sintered	MIM - MPIF 35 min ² H900 Heat Treat
Yield strength (MPa)	ASTM E8M	660	981	650	970
Ultimate tensile strength (MPa)	ASTM E8M	912	1205	790	1070
Elongation at break	ASTM E8M	5.9%	11.9%	4%	4%
Young's modulus (GPa)	ASTM E8M	178	185	190 (typ)	190 (typ)
Hardness (HRC)	ASTM E18	26.4	40.5	27 (typ)	35 (typ)
Density (g/cc)	ASTM B311	7.66	7.66	7.5	7.5

SURFACE ROUGHNESS (@ 75 μM LAYER THICKNESS)

xy (μm Ra)	4.1
z (μm Ra)	8.0

OTHER STANDARD DESIGNATIONS ¹

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



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1. Listed designations are for reference purposes only. Composition and mechanical properties may vary.
2. Per MPIF Standard 35, Materials Standards for Metal Injection Molded Parts (MPIF 35-MIM, 2018). End-use material performance is impacted (+/-) by certain factors including but not limited to part geometry and design, application and evaluation conditions, etc.

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