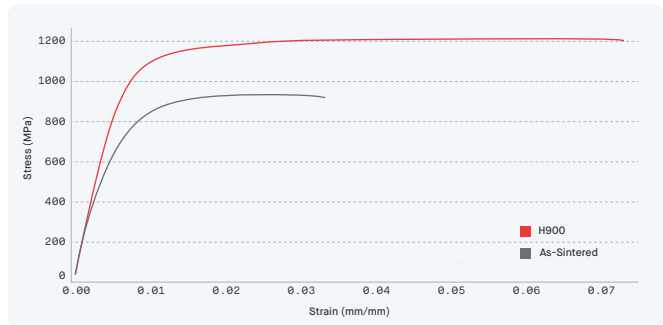
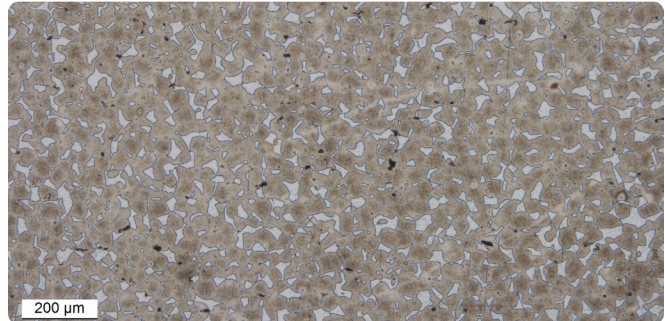


[Material Data Sheet]

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	MIM - MPIF 35 min ² As-Sintered	Shop System™ H900 Heat Treat	MIM - MPIF 35 min ² H900 Heat Treat
Yield strength (MPa)	ASTM E8M	660±40	650	981±50	970
Ultimate tensile strength (MPa)	ASTM E8M	912±35	790	1205±35	1070
Elongation at break (%)	ASTM E8M	5.9±2	4	11.9±5	4
Young's modulus (GPa)	ASTM E8M	178±30	190 (typ)	185±20	190 (typ)
Hardness (HRC)	ASTM E18	26.4±1	27 (typ)	40.5±2	35 (typ)
Density (g/cc)	ASTM B311	7.5-7.66	7.5	7.5-7.66	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

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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