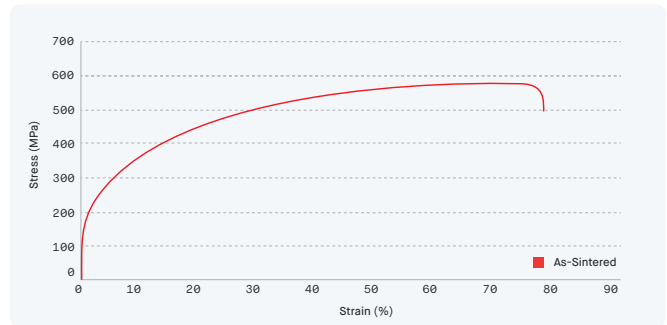


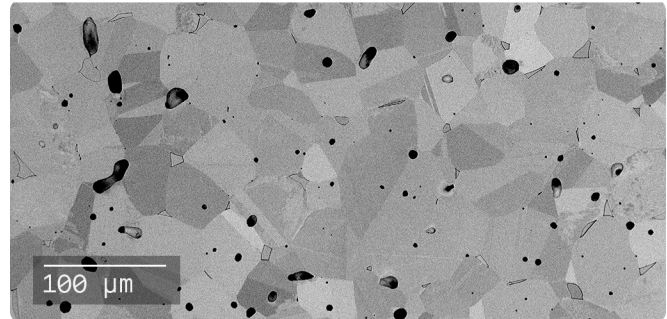
[Material Data Sheet]

304L Stainless Steel PureSinter Furnace



COMPOSITION %

Fe	Balance
Cr	17.5 - 19.5
Ni	8 - 12
Mn	2 (max)
Si	1 (max)
P	0.045 (max)
S	0.03 (max)
N	0.1 (max)
C	0.045 (max)



MECHANICAL PROPERTIES IN DESKTOP METAL PURESINTER FURNACE¹

	Standard	Shop System™ As-Sintered ²
Ultimate tensile strength (MPa)	ASTM E8/E8M	560 ± 10
Yield strength (MPa)	ASTM E8/E8M	200 ± 3
Elongation at break (%)	ASTM E8/E8M	72.4 ± 3
Young's modulus (GPa)	ASTM E111	196
Hardness (HRB)	ASTM E18	71 ± 1.2
Charpy impact energy (J) ³	MPIF 59/ASTM E23	220 ± 4
Density (g/cc)		7.73 ± 0.02

CORROSION PROPERTIES³

Boil test	ASTM F1089	Pass
Copper sulfate test	ASTM F1089	Pass
Sulfuric acid test (g/dm ² /day)	MPIF 62	<0.001

ATTRIBUTES & APPLICATIONS

- Structural components (e.g. housings & frames)
- Jewelry & decorative items
- Fluid transfer components (e.g. manifolds)
- Food processing equipment
- Welded components & assemblies

OTHER STANDARD DESIGNATIONS⁴

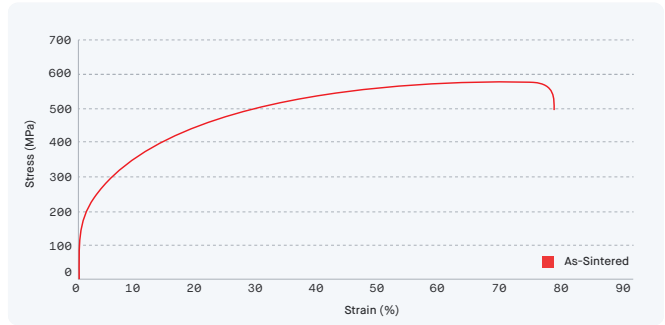
- UNS S30403
- EN 1.4307
- X2CrNi18-9

1. Mechanical properties noted represent mean values +/- 1 standard deviation across Xy & Yx orientations for as-printed samples.
 2. Charpy bar is un-notched 5x10 mm sample
 3. Prior to corrosion resistance testing, all test samples were passivated in accordance with ASTM A967.
 4. Listed designations are for reference purposes only. Composition and mechanical properties may vary.

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

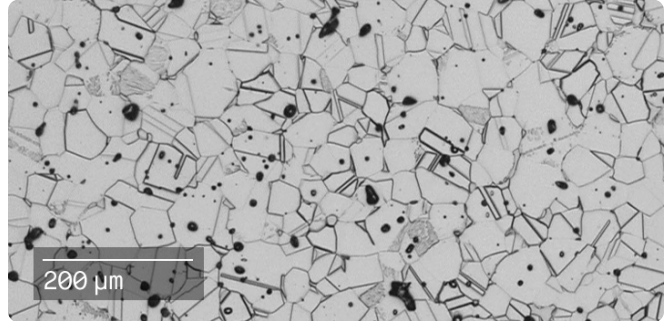
[Material Data Sheet]

304L Stainless Steel



COMPOSITION %

Fe	Balance
Cr	17.5 - 19.5
Ni	8 - 12
Mn	2 (max)
Si	1 (max)
P	0.045 (max)
S	0.03 (max)
N	0.1 (max)
C	0.03 (max)



MECHANICAL PROPERTIES ¹

	Standard	Shop System™ As-Sintered ²
Ultimate tensile strength (MPa)	ASTM E8M	577 ± 8
Yield strength (MPa)	ASTM E8M	182 ± 4
Elongation (%)	ASTM E8M	79 ± 5
Young's modulus (GPa)	ASTM E111	188 ± 15
Notched Charpy impact energy (J)	ASTM E23	75 ± 8.5
Hardness (HRB)	ASTM E18	68 ± 2
Density (g/cc)	ASTM B311	7.7 ± 0.06

ATTRIBUTES & APPLICATIONS

- Structural components (e.g. housings & frames)
- Jewelry & decorative items
- Fluid transfer components (e.g. manifolds)
- Food processing equipment
- Welded components & assemblies

OTHER STANDARD DESIGNATIONS ⁴

- UNS S30403
- EN 1.4307
- X2CrNi18-9

PERFORMANCE ³

Boil test (corrosion)	ASTM F1089	Pass
Copper sulfate test (corrosion)	ASTM F1089	Pass

1. Mechanical properties noted represent mean values +/- 1 standard deviation across Xy & Yx orientations for as-printed samples.
 2. Sintered in an Ipsen Titan H2 graphite hot zone furnace.
 3. Prior to corrosion resistance testing, all test samples were passivated in accordance with ASTM A967.
 4. Listed designations are for reference purposes only. Composition and mechanical properties may vary.

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