

316L Stainless Steel

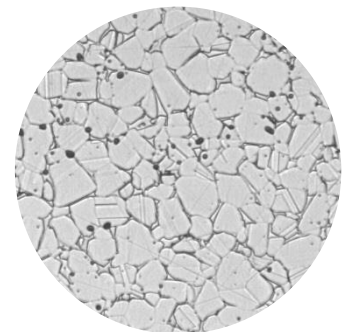
Typical Material Properties

Material Properties	Test Method	316L
Tensile Strength		
Ultimate Strength	ASTM E8	X & Y: 450 - 580 MPa Z: 450 - 520 MPa
Yield Strength (0.2% offset)		X & Y: 140 - 220 MPa Z: 140 - 220 MPa
Elongation		X & Y: 40 - 55% Z: 40 - 50%
Elastic Modulus		X & Y: 190 - 220 GPa Z: 180 - 190 GPa
Hardness	ASTM E18	67 - 71 HRB
Impact	ASTM E23	55 - 75 J
Poisson's Ratio		0.28 - 0.30
Relative Density		96 - 99%
Density		7.6 - 7.9 g/cc
Surface Roughness		3 - 12 $\mu\text{m Ra}$



316L Printed Part

Material Composition			
Iron	bal	Molybdenum	2-3%
Nickel	10-14%	Manganese	2.0% max
Chromium	16-18%	Silicon	1.0% max
Carbon	0.03% max		



Microstructure

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