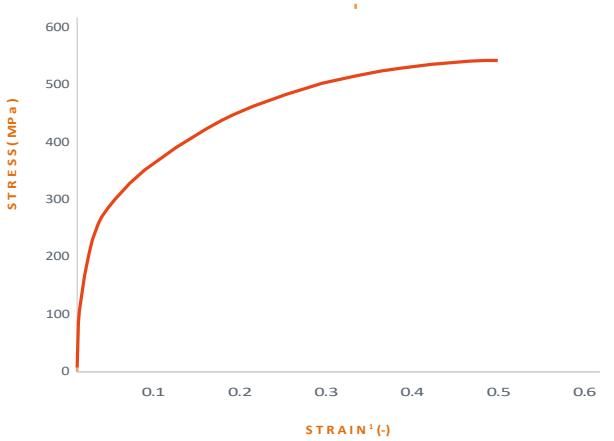
MAGNA Digitech

Desktop Metal Studio Plus System™

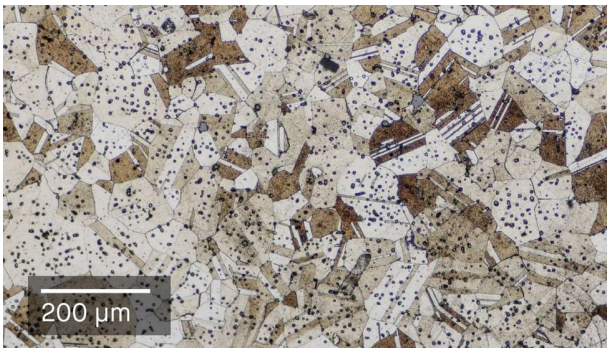
316L stainless steel

Characterized by its corrosion resistance and performance at both high and low temperatures, 316L is a fully austenitic stainless steel. It is used often in applications involving chemical processing, salt water environments, and household or industrial fixtures.



Preliminary composition[2]

Fe	**Balance**
Cr	**16 - 18%**
Ni	**10 - 14%**
Mo	**2 - 3%**
Mn	**2.0% (max)**
Si	**1.0% (max)**
C	**0.045% (max)**



Mechanical properties

	per standard	Studio System™ as-sintered	MPIF 35-MIM[3] as-sintered (min)	Wrought[4] for reference
Yield strength (MPa)	ASTM E8M	**165**	140	170
Ultimate tensile strength (MPa)	ASTM E8M	**494**	450	425
Elongation at break	ASTM E8M	**51%**	40%	40%
Hardness (HRB)	ASTM E18	**67 (typ)**	67 (typ)	95 (max)
Density (relative)	ASTM B311	**95%**	95%	100%

Performance

Boil test[5] (corrosion)	ASTM F1089	**Pass**
Copper sulfate test[5] (corrosion)	ASTM F1089	**Pass**

Similar standard designations[6]

UNS	S31603
EN	1.4404

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