

Meltio Stainless Steel 316L

Material Group: Stainless Steels

Stainless Steel 316L is an austenitic steel with excellent durability, good biocompatibility and adequate elevated temperature properties. The alloy has low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. Thus, parts manufactured with stainless steel have a low carbon content which makes the material ideal for corrosion resistance applications.

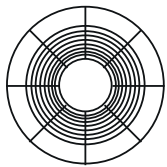
Nomenclature Standards

AWS A 5.9	ER316LSi
EN ISO 14343 - A	G 19 12 3 L Si
Material N°	1.4430

Chemical Composition





C	Si	Mn	Cr	Ni	Mo
0,02	0,9	1,7	18,5	12	2,7

Spool Specs



Diameter	1 mm
Weight	15 kg
Volume	1875 cm ³
Density	8.0 g/cm ³
Spool Type	BS300

Applications

			
Chemical industries	Architectural structures	Food industries	Shipbuilding

Mechanical Properties

Results show Meltio's wire LMD 3D printed specimens to perform at the same level as conventional manufacturing methods, with low deviations and near isotropic properties between horizontal (XY) and vertical (XZ) print orientations.

	Wrought Properties	Cast Properties	Meltio XY Properties	Meltio XZ Properties
Tensile Strength (MPa)	515	550	635 ± 13	650 ± 7
Yield Strength (MPa)	208	260	390 ± 30	380 ± 17
Elongation (%)	40	35	52 ± 3	46 ± 4

Shielding gas: Argon > 99.996% purity.

Data represent typical reference values from Wrought (ASTM A403) and Cast (ASTM A351) classification compared to Meltio horizontal (XY) and vertical (XZ) specimens extracted from 3D printed walls and tensile tested according to ASTM A370 / ASME SA-370

Laser Power Print	Print Speed
900 W	600 mm/min

*For latest printing parameters check the Meltio asset portal.

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