

# 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.

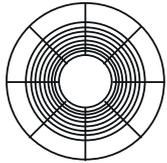
## Nomenclature Standards

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



<b>Diameter</b>	1 mm
<b>Weight</b>	15 kg
<b>Volume</b>	1875 cm <sup>3</sup>
<b>Density</b>	8.0 g/cm <sup>3</sup>
<b>Spool Type</b>	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
<b>Tensile Strength (MPa)</b>	515	550	635 ± 13	650 ± 7
<b>Yield Strength (MPa)</b>	208	260	390 ± 30	380 ± 17
<b>Elongation (%)</b>	40	35	52 ± 3	46 ± 4

Shielding gas: Argon > 99.996% purity.

Data represents 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.

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