



Stainless Steel 316L

Alternative

Designations

X2CrNiMo17-12-2

Key Features

Stiffness • Corrosion resistance •
High ductility and toughness •
Properties can be enhanced with
heat-treatment

Product Description

EOS StainlessSteel 316L is a high-performance, marine-grade austenitic stainless steel alloyed with molybdenum for enhanced corrosion resistance in chloride environments. It offers high ductility, toughness, and strength, making it suitable for various applications in the chemical industry, food processing, medical devices, and more. This material is widely used in process, energy, paper, and transportation industries due to its superior properties.



Properties*

Yield strength (xy/z)	540 / 480 MPa
Tensile strength (xy/z)	645/560 MPa
Elongation at break (xy/z)	38 / 49%
Coefficient of thermal expansion (25-100 °C)	15.72*10 ⁻⁶ /K
Density	7.97 g/cm ³
Hardness	90 HRB
Corrosion resistance	5/5

*As manufactured, 20 μm layer
thickness



Direct Metal Laser Sintering (DMLS)

Stainless Steel 316L

Applications

Engineering
Machine building
Medicine, dentistry
Consumer goods
Maritime
End-use parts



Chemical Composition

Fe	Balance
Cr	17-19
Ni	13-15
Mo	2.25 - 3
C	0.03
N	0.10