

TECHNICAL DATA SHEET Stainless Steel 316L Filamet™

SECTION 1 - TYPICAL MATERIAL PROPERTIES

Physical Properties	Unit	Value	
Density	g/cc	3.5	
Humidity Absorption	%	No information available	
Tensile Strength	MPa	No information available	
Tensile Elongation	%	No information available	
Flexural Strength	MPa	No information available	
Flexural Modulus	GPa	No information available	
Izod Impact Strength	kJ/m²	No information available	

SECTION 2 - FILAMENT SPECIFICATION

Nominal Diameter	Diameter Tolerance	Ovality
1.75mm	± 0.05	≥ 95%
2.85mm	± 0.05	≥ 95%

Net Filament Weight Metal Content

1000 / 500 grams 81 - 85%

SECTION 3 - GUIDELINE FOR PRINT SETTINGS

Advised Printing Temperature 205 - 235°C

Advised Build Plate Temperature 40 - 50°C

Build Plate Surface Type Glass / PEI / G10 / Powder Coated Spring Steel

Build Plate Preparation Glue Stick (on glass) Blue Painter's Tape (on PEI/G10) - Nothing needed

for Powder Coated Spring Steel

Print Cooling None Required

Advised Printing Speed 60mm/sec (3600mm/min)

Nooze Size/Type 0.6mm / Hardened Steel

SECTION 4 - ADDITIONAL INFORMATION

Sintering Temperature: 1200°C (2192°F)

This filament is abrasive and will wear standard brass nozzles fast. The Virtual Foundry, Inc recommends a hardened steel nozzle. A Filawarmer is required for this filament.

DISCLAIMER: The product and technical information provided in this datasheet is correct to the best of The Virtual Foundry, Inc's knowledge. The information given is provided as a guidance for good use, handling and processing and is not to be considered as a quality specification. The information only relates to the specific product and the material properties.



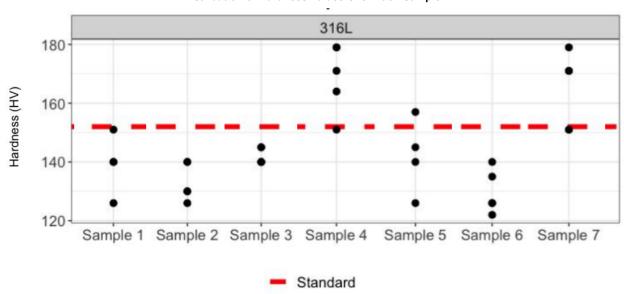
TECHNICAL DATA SHEET Stainless Steel 316L Filamet™

Engineering Standards and Procedures

Sample Preparation: ASTM E3 –11 Vickers Hardness Testing: ASTM E92 – 17 Rockwell Hardness Testing: ASTM E18 – 20 Hardness Conversions: ASTM E140 – 12b

Data and Analysis

Distribution of Hardness Values Over Each Sample

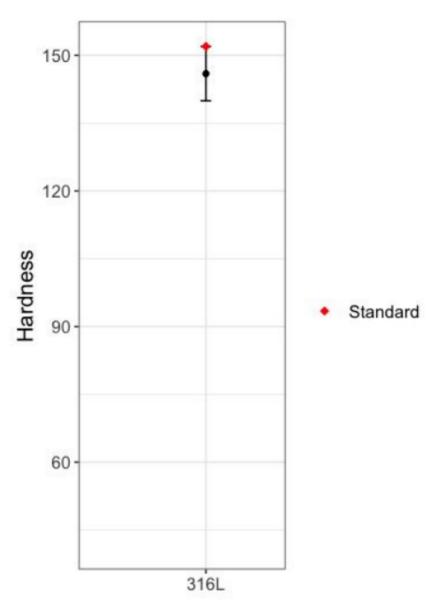




TECHNICAL DATA SHEET Stainless Steel 316L Filamet™

Data and Analysis

95% Confidence Levels of Hardness Values



Expected: 152 HV Mean: 146.0 HV

Number of Measurements: 33 Standard Deviation: 17 P-Values: 0.0413