

SECTION 1 - TYPICAL MATERIAL PROPERTIES

Physical Properties	Unit	Value
Density	g/cc	4.50 - 4.70
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/m ²	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		89% - 90%

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)
Nozzle Size/Type	0.6mm / Hardened Steel

SECTION 4 - ADDITIONAL INFORMATION

Sintering Temperature: 1052°C (1925°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.

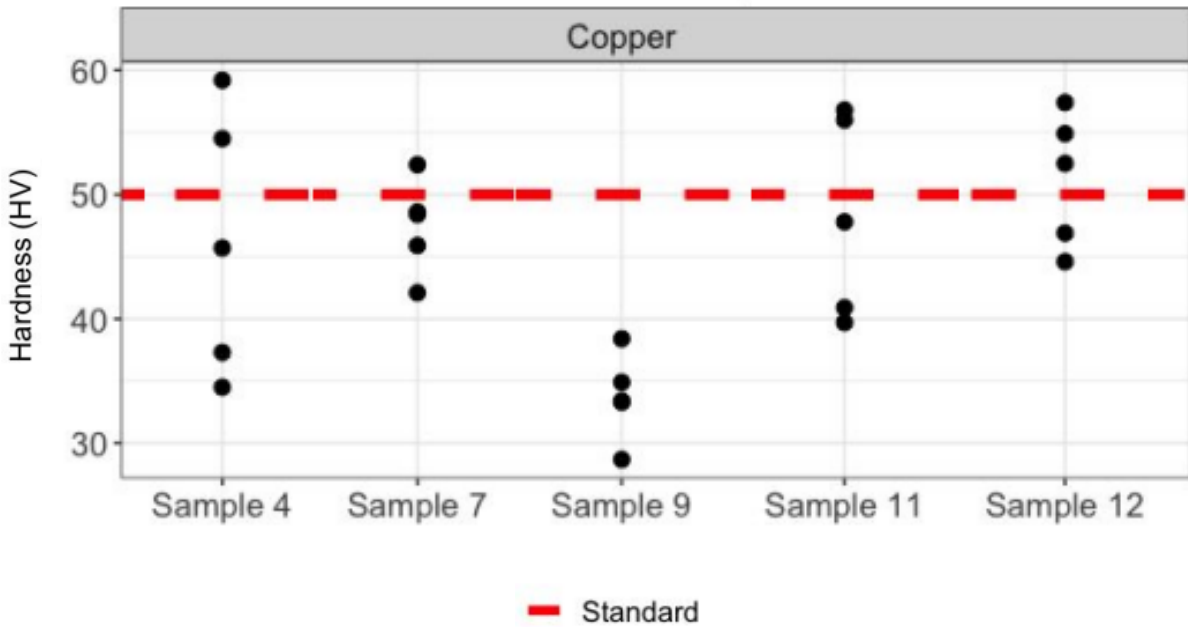
DISCLAIMER: The product and technical information provided in this datasheet is correct to the best of The Virtual Foundry, Inc's knowledge. The information given is provided as a guidance for good use, handling and processing and is not to be considered as a quality specification. The information only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

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

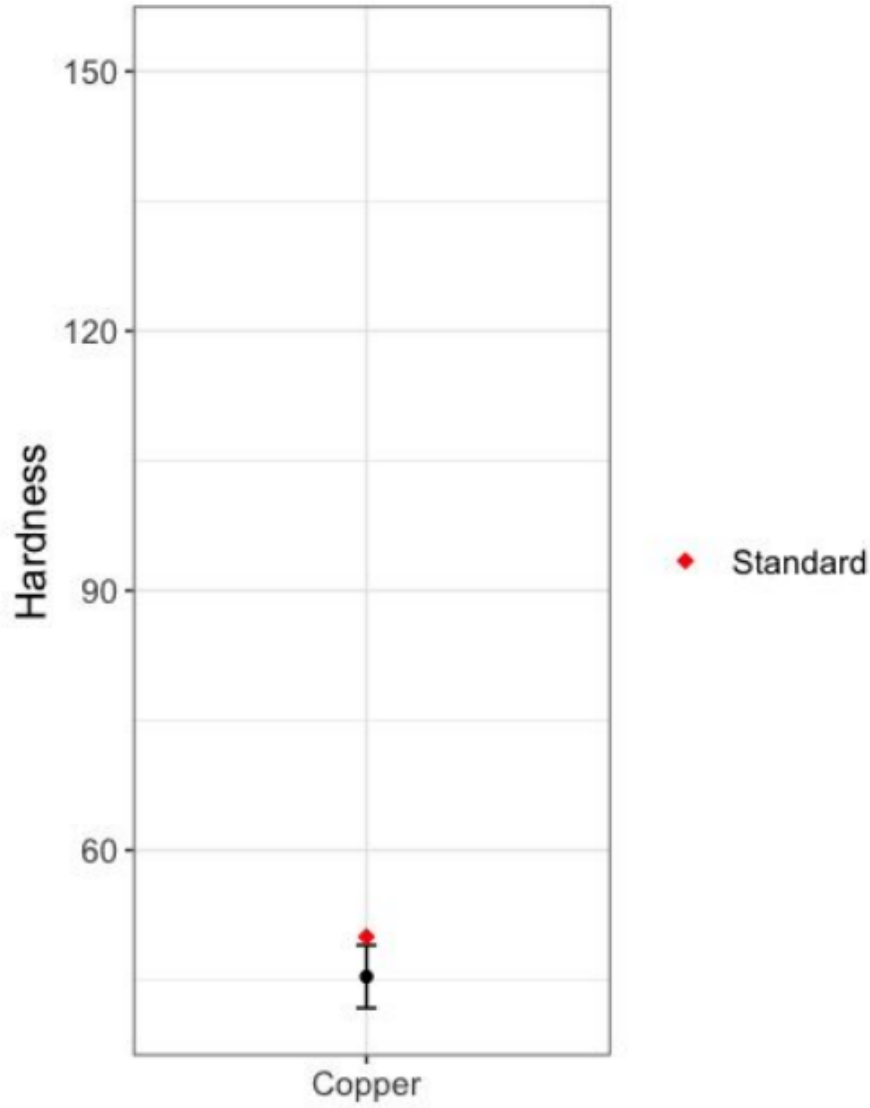
Data and Analysis

Distribution of Hardness Values Over Each Sample



Data and Analysis

95% Confidence Levels of Hardness Values



Expected: 50 HV
Mean: 45.4 HV
Number of Measurements: 25
Standard Deviation: 8.8
P-Values: 0.0088