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Description

colorFabb ASA is a high quality 3D printing filament with excellent melt-flow properties. The most important features of ASA are its inherent UV stability, and high temperature resistance up to 100°C. This material, therefore, is well suited for long-lasting outdoor applications.

Typical Properties

Mechanical Properties – 3D Printed

	Method	Value	Unit
Youngs Modulus	Tensile, ISO 527-1A	2100	MPa
Tensile Strength	Tensile, ISO 527-1A	45	MPa
Elongation at break	Tensile, ISO 527-1A	6.5	%
Flexural Modulus	Flexural, ISO 178	N/A	MPa
Flexural Strength	Flexural, ISO 178	N/A	MPa
Impact Strength	Charpy Notch, ISO 179	10.5	kJ/m ²

Mechanical Properties – Injection Molded*

	Method	Value	Unit
Youngs Modulus	Tensile, ISO 527-1A	2200	MPa
Tensile Strength	Tensile, ISO 527-1A	50	MPa
Elongation at break	Tensile, ISO 527-1A	20	%
Flexural Modulus	Flexural, ISO 178	2300	MPa
Flexural Strength	Flexural, ISO 178	80	MPa
Izod Impact Strength	Izod Notch, ISO 180	140	J/m
Density	ISO 1183	1.07	g/cm ³

Thermal Properties*

	Method	Value	Unit
Glass Transition Temp.	DSC, ISO 11357	N/A	°C
Melting Temp.	DSC, ISO 11357	N/A	°C
Decomposition Temp.	TGA, ISO 11358	N/A	°C
Heat Deflection Temp.	HDT-B, ISO 75	87	°C
Melt Flow Index	MFI, (210°C/2.16 kg), ISO 1133-A	N/A	g/10min
Melt Flow Index	MFI, (190°C/1.16 kg), ISO 1133-A	N/A	g/10 min

*These results are obtained from the information provided by the supplier of the raw material

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Filament Specifications

	Unit		
Diameter	mm	1.75	2.85
Max. roundness deviation	mm	± 0.05	± 0.1
Net. Filament weight	g	650/2000	650/2000

Guideline for print settings

	Unit	
Nozzle Temp.	°C	240-260
Bed Temp.	°C	90-100
Bed / surface modification	-	-
Active cooling fan	%	0-50**
Print Speed	mm/s	30-50

Notes

The reported properties are an average of a batch of 3D specimens.
The specimens have been printed in XY plane, using 0.15 mm layer height, 100% infill, 0,4 mm nozzle, 260 °C nozzle temperature and 100°C bed temperature.

**To reduce warping, we would advice to use the least amount of cooling possible. Also, for the best mechanical performance and layer adhesion, try printing with the least amount of cooling.

Disclaimer

The product- and technical information provided in this datasheet is correct to the best of our 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.