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Version: v2.0

Description

colorFabb_nGen is produced using Eastman Amphora HT3300, and is known for its excellent melt-flow properties. This means, the material will print well at medium to high print speeds. These properties make nGen more workable at a wider breadth of temperatures, producing reliable results, and thus producing less waste. nGen exhibits advanced overhang ability, excellent looks, and large printing-temperature range – empowering large panel of users to create durable and useful items.

Typical Properties

Mechanical Properties – 3D Printed

	Method	Value	Unit
Youngs Modulus	Tensile, ISO 527-1A	1700	MPa
Tensile Strength	Tensile, ISO 527-1A	54	MPa
Elongation at break	Tensile, ISO 527-1A	11	%
Flexural Modulus	Flexural, ISO 178	N/A	MPa
Flexural Strength	Flexural, ISO 178	N/A	MPa
Impact Strength	Charpy Notch, ISO 179	3.3	kJ/m ²

Mechanical Properties – Injection Molded*

	Method	Value	Unit
Youngs Modulus	Tensile, ASTM D638	N/A	MPa
Tensile Strength	Tensile, ASTM D638	50	MPa
Elongation at break	Tensile, ASTM D638	190	%
Flexural Modulus	Flexural, ASTM D790	1800	MPa
Izod Impact Strength	Izod Notch, ASTM D256	70	J/m
Density	ISO 1183	1.2	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	@0.455 MPA, ASTM D648	71	°C
	@1.82 MPA, ASTM D648	63	°C
Melt Flow Index	MFI, 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
Ovality	%	≥95	≥95
Net. Filament weight	g	750	750

Guideline for print settings

	Unit	
Nozzle Temp.	°C	220-240
Bed Temp.	°C	75-85
Bed / surface modification	-	-
Active cooling fan	%	0-80
Print Speed	mm/s	40-70

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, 230 °C nozzle temperature and 80°C bed temperature.

For best layer-to-layer, try to print with the least amount of fan cooling possible.

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.