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nGen is made with Amphora AM3300 and has good melt-flow properties, meaning it prints well at medium to high print speed. These properties make nGen more workable at a wider breadth of temperatures, producing reliable results and resulting in 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 MATERIAL PROPERTIES – 3D Printed

Physical properties	Unit	Value	Method
Tensile modulus	MPa	1689,54	ISO 527
Yield strength	MPa	54,02	ISO 527
Yield strain	%	5,03	ISO 527
Tensile strength	MPa	54,23	ISO 527
Tensile strain at tensile strength	%	5,19	ISO 527
Tensile stress at break	MPa	30,83	ISO 527
Tensile strain at break	%	10,75	ISO 527
Charpy unnotched impact strength	kJ/m2	54,35	ISO 179-1/1 eU
Charpy notched impact strength	kJ/m2	3,28	ISO 179-1/1 eU
Shore D	Shore D	-	ISO 7619
HDT	°C	-	ISO 75

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TYPICAL MATERIAL PROPERTIES – Injection molded

Physical properties	Unit	Value	Method
Density	g/cm ³	1,20	D 792
Tensile Stress @ Yield	MPa	50	D 638
Tensile Stress @ Break	MPa	35	D 638
Elongation @ Yield	%	4,5	D 638
Elongation @ Break	%	193	D 638
Flexural Modulus	MPa	1800	D 790
Flexural Strength	MPa	67	D 790
Rockwell Hardness, R Scale	-	105	D 785
Izod Impact strength, notched @ 23 °C	J/m	70	D 256
Izod Impact strength, notched @ -40 °C	J/m	38	D 256
Izod Impact strength, unnotched @ 23 °C	J/m	NB	D 4812
Izod Impact strength, unnotched @ -40 °C	J/m	NB	D 4812
Deflection Temperature @ 0.455 MPa	°C	71	D 648
Deflection Temperature @ 1.82 MPa	°C	63	D 648

FILAMENT SPECIFICATION

Nominal diameter:	Diameter tolerance	Ovality
1,75 mm	± 0.05mm	≥ 95%
2,85 mm	± 0.1mm	≥ 95%

Netto filament weight 750g

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	220 - 240°C
Bed temperature	75 - 85°C
Bed surface / modification	-
Active cooling fan	0-80%*
Print speed	40-70 mm/s

*For best possible layer-to-layer adhesion it's recommended use the minimum amount of fan cooling needed.

Notes

The reported properties are an average of a batch of 3D printed specimens. The specimens have been printed in XY plane, using 0.15mm layerheight, 100% infill, 0.4mm nozzle, 230 °C nozzle temperature and 80 °C bed temperature.

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.