

Technical datasheet

XT-CF20

color**Fabb**

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Version: v1.0

ColorFabb XT-CF20 is a high quality Eastman Amphora AM1800 copolyester based 3D printing filament, infused with 20% carbon fibers. This is the perfect filament for parts which need high stiffness. 3D prints with ColorFabb XT-CF20 have a beautiful matte surface finish when printed.

TYPICAL MATERIAL PROPERTIES – 3D Printed

Physical properties	Unit	Value	Method
Tensile modulus	MPa	5143,00	ISO 527
Yield strength	MPa	N/A	ISO 527
Yield strain	%	N/A	ISO 527
Tensile strength	MPa	55,78	ISO 527
Tensile strain at tensile strength	%	2,04	ISO 527
Tensile stress at break	MPa	55,78	ISO 527
Tensile strain at break	%	2,04	ISO 527
Flexural modulus	MPa	-	ISO 178
Flexural strain at standard deflection	MPa	-	ISO 178
Flexural strength	MPa	-	ISO 178
Flexural strain at flexural strength	%	-	ISO 178
Flexural stress at break	MPa	-	ISO 178
Flexural strain at break	%	-	ISO 178
Charpy unnotched impact strength	kJ/m2	27,42	ISO 179-1/1 eU
Charpy notched impact strength	kJ/m2	2,45	ISO 179-1/1 eU
Heat Deflection Temperature (HDT)	°C	-	ISO 75

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TYPICAL MATERIAL PROPERTIES – Injection molded

Physical properties	Unit	Value	Method
Density	g/cm ³	1,35	ISO 1183
Tensile Strength	MPa	76	ISO 527
Tensile Elongation@break	%	7,5	ISO 527
Flexural Strength	MPa	110	ISO 178
Flexural Modulus	GPa	6,2	ISO 178
Izod Impact strength, notched	kJ/m ²	6	ISO 180
Izod Impact strength, unnotched	kJ/m ²	60	ISO 180

FILAMENT SPECIFICATION

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

Netto filament weight 750g/2200g

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	240 - 260°C
Bed temperature	60 - 70°C
Bed surface / modification	-
Active cooling fan	0-50%*
Print speed	40-70 mm/s

*For best part strength try to print with the least amount of fan cooling possible. For better small details and overhangs increase fan speed.

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, 250°C nozzle temperature and 70°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.