

# FL600EVA-BIO

FL600EVA-BIO is a bio-based ethylene vinyl acetate (EVA) filament, derived from raw sugar cane, providing a more sustainable alternative to traditional flexible materials available on the market. This low carbon footprint formulation, delivers a unique combination of

sustainability, flexibility, ductility, light weighting, and moisture resistance for direct drive 3D printing systems. FL600EVA-BIO expands the availability of sustainable materials for use in 3D printing applications such as; consumer, packaging, and industrial markets.

## Recommended Print Settings

**Direct drive system 3D printer recommended.**

Parameter	Units	Range
Extruder Temperature	°C	220 - 250
*Recommended Bed Temperature (first layer)/ Substrate	°C / Type	20-40 (90) / Magigoo PPGF adhesion solution stick
**Alternate Bed Temperature (first layer)/ Substrate	°C / Type	20 - 40 (90) / Multi-purpose polyolefin adhesive
Printing Speed	mm/s	20 - 40
Fan Speed	%	50 - 100
Extrusion Multiplier	–	0.90 - 1.10
Overlap Percentage	%	20 - 40
Retraction distance	mm	1 - 10
Retraction speed	mm/s	10 - 40

\* Recommended to use a bed adhesive specifically designed for flexible filaments.

\*\* Traditional bed adhesive solutions used for PLA and ABS (such as blue tape, glue sticks, hair spray) will not properly adhere PP to the built plate.

## Printed Part Properties

Parameter	Method	Units	Value
Density	ASTM D 792	g/cm <sup>3</sup>	0.94
Hardness	ASTM D 2240	Shore A	94
Tensile Strength at Break*	ASTM D 638	MPa	9.6
Tensile Elongation at Break*	ASTM D 638	%	560
Young's Modulus*	ASTM D 638	MPa	78
Flexural Modulus – Chord Modulus	ASTM D790	MPa	130
Vicat Softening Temperature (at 10 N)	ASTM D 1525	°C	67

**\*Note:** Printed part properties obtained using test specimens printed in X-Y direction under the following conditions: printing temperature 230°C, bed temperature 20°C (90°C first layer) , print speed 20 mm/s, 100% of lines infill, 0 perimeter layers, 0.15 mm layer height, direct drive system 3D printer, 0.4 mm brass nozzle.

## Notes

1. Recommended process conditions and printed part properties may be changed at any moment without previous communication from Braskem.
2. This resin does not contain the substance Bisphenol A (BPA, CAS: 80-05-7) in its composition.
3. For information on about safety, handling, individual protection, first aids and waste disposal, please see MSDS.
4. In case of questions regarding utilization or regulatory information, please contact our technical assistance area.

**Braskem does not guarantee printed part conditions, these represent estimated values based on internal test methods. Properties may vary based on print conditions.**