

FL300PE

FL300PE is a 100% Polyethylene (PE) filament designed to be easy to print, lightweight, highly moisture and chemical resistant. This filament is ideal for packaging, prototyping, and consumer goods applications. FL300PE is an excellent solution anywhere traditional HDPE resins are typically required.

Recommended Print Settings

Parameter	Units	Range
Extruder Temperature	°C	210 - 230
*Bed Temperature / Substrate (First Layer)	°C / Type	60-80 (110) / adhesion solution stick for glass-filled polyolefin filaments
**Alternate Bed Temperature / Substrate (First Layer)	°C / Type	20-40 (90) / Polyolefin adhesive solution
Printing Speed (First Layer)	mm/s	20 - 65 (60% speed)
Fan Speed	%	50 - 100
Extrusion Multiplier	–	0.90 – 1.10
Overlap Percentage	%	20 – 40
Brim	mm	≥ 10

* Recommended to use a bed adhesive specifically designed for glass-filled polyolefin filaments.

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

Printed Part Properties

Parameter	Method	Units	Value
Density	D 792	g/cm ³	0.954
Ultimate Tensile Strength*	D 638	MPa	18.5
Tensile Elongation at Break*	D 638	%	208
Young's Modulus*	D 638	MPa	752
Flexural Modulus – Chord Modulus*	D 790	MPa	731.5
Charpy Impact Strength at 23°C*	ISO 179	kJ/m ²	79
Deflection Temperature (at 0.455 MPa)	D 648	°C	66
Vicat Softening Temperature (at 10 N)	D 1525	°C	125

***Note:** Printed part properties obtained using test specimens printed in X-Y direction under the following conditions: printing temperature 210°C, bed temperature 110°C for the first layer and 60°C other layers, print speed 30 mm/s, 0.15 mm layer height, 100% of grid infill, 3 perimeter layers, using a brass 0.4 mm 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.