

# Recycled PE Filament

SKU: FL600R

Formulated from recycled bottle caps, Xtellar recycled PE filament is a recycled polyolefin blend containing over 90% sustainably sourced material. This environmentally friendly filament provides the same low density as well as water, chemical, and impact resistance inherent to virgin polyolefin-based materials.

## Recommended Print Settings

Parameter	Units	Range
Extruder Temperature	°C	220 - 240
*Recommended Bed Temperature / Substrate	°C / Type	60 / PP-GF bed adhesion solution stick (water soluble)
*Initial Bed Temperature / Substrate	°C / Type	110 / PP-GF bed adhesion solution stick (water soluble)
Printing Speed (First Layer)	mm/s	30 - 65 (50% speed)
Fan Speed	%	50 - 100
Extrusion Multiplier	–	0.90 – 1.10
Overlap Percentage	%	20 – 40
**Brim	Layers	≥ 5

## Printed Part Properties

Parameter	Method	Units	Value
Density	D 792	g/cm <sup>3</sup>	0.95
Hardness <sup>a</sup>	D 2240	Shore D	54
Ultimate Tensile Strength <sup>a</sup>	D 638	MPa	15.5
Tensile Elongation at Break <sup>a</sup>	D 638	%	514
Youngs Modulus <sup>a</sup>	D 638	MPa	703
Flexural Modulus – Chord Modulus <sup>a</sup>	D 790	MPa	547
Charpy Impact Strength at 23 °C <sup>a</sup>	ISO 179	kJ/m <sup>2</sup>	83.9
Izod Impact Strength at 23 °C <sup>a</sup>	D 256	J/m	414
Deflection Temperature (at 0.455 MPa) <sup>a</sup>	D 648	°C	51
Vicat Softening Temperature (at 10 N) <sup>a</sup>	D 1525	°C	99

## Notes

1. Recommended process conditions and printed part properties may be changed at any moment without previous communication from Xtellar.
2. 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, 0.4 mm brass nozzle.
3. Traditional bed adhesive solutions used for PLA & ABS (such as blue tape or hair spray) will not properly adhere PP, PE, or EVA to the build plate.
4. This resin does not contain the substance Bisphenol A (BPA, CAS: 80-05-7) in its composition.
5. For information on about safety, handling, individual protection, first aids and waste disposal, please see SDS. In case of questions regarding utilization or regulatory information, please contact our technical assistance area.