



# PETG

## CHEMICALLY RESISTANT AND EASY TO PRINT



BigRep PETG is a great **alternative to BigRep PLA** with higher impact strength and heat deflection at a similarly **affordable price**. With minimal shrinkage, parts printed with BigRep PETG demonstrate minimal warping and **reliable results**. PETG is easy to print and perfect for design iterations in the prototyping phase of nearly any application. It features well-balanced mechanical properties, making PETG a suitable filament for all-around usage. BigRep PETG is **chemically resistant** and a great choice for applications where parts are exposed to oils, fuels, alcohols, and weak acids.

Available in several transparent colors, BigRep PETG delivers beautiful results lending a **glossy sheen to the transparent surface**. This can be particularly important for certain end use parts, when visual appearance is paramount.



Easy to Print for  
Wide Range of Uses



High Chemical  
Resistance



Good Heat Deflection  
Temperature



Minimal Shrinkage  
for Part Accuracy



Glossy Transparent  
Surface



PHYSICAL PROPERTIES	TEST METHOD	VALUE
Density	ISO 1183	1.27 g/cm <sup>3</sup>
Filament Diameter	-	2.85 mm +/- 0.05
Color Availability	-	Transparent, Green, Translucent Purple
Filament Net Weight	-	2.3, 4.0, 8.0 kg
MECHANICAL PROPERTIES	TEST METHOD	VALUE
Tensile Strength	ISO 527	50 MPa
Tensile Modulus	ISO 527	1900 MPa
Elongation at Break	ISO 527	15%
Flexural Strength	ISO 178	70 MPa
Flexural Modulus	ISO 178	2100 MPa
Charpy Unnotched Impact Strength	ISO 179	22 kJ/m <sup>2</sup>
Charpy Notched Impact Strength	ISO 179	7.2 kJ/m <sup>2</sup>
THERMAL PROPERTIES	TEST METHOD	VALUE
HDT - B - 0.45 MPa	ISO 75	70 °C
HDT - A - 1.8 MPa	ISO 75	63 °C
Vicat Softening Temperature	DSC	78 °C
Glass Transition Temperature (Tg)	ISO 306	85 °C
Continuous Use Temp. (UL Yellow Card)	DSC	50 °C
<b>COMPLIANCE</b>	<input checked="" type="checkbox"/> REACH Compliant <input checked="" type="checkbox"/> RoHS Certified <input type="checkbox"/> FDA Compliant	

PROPERTIES	RECOMMENDED USAGE
Nozzle Temperature	205 - 200 °C
Bed Temperature	>60°C
Printer Compatibility	BigRep ONE, BigRep PRO, BigRep STUDIO, BigRep STUDIO G2
Fan Speed	0 - 50%
Surface Adhesion	<ul style="list-style-type: none"> <li>Kapton (Additional adhesion using glue, e.g. Magigoo)</li> <li>BigRep SWITCHPLATE</li> </ul>
Drying	PETG is moderately hygroscopic. Recommended drying at 60 °C for 4 - 6 hours.
Storage and Shelf Life	Keep dry, avoid sunlight, and store at room temperature. Use BigRep SHIELD for best results. When stored properly, product has a shelf life of 24 months.
Handling	Use the BigRep Keep-Dry Box for best material printability.
Post-Processing	Wear gloves to avoid possible microdamage to skin. Use a dust mask and protective glasses when processing.
Support	<ul style="list-style-type: none"> <li>Breakaway</li> </ul>