

rPETG Filament Technical Data Sheet

rPETG

rPETG is a blend of 90% recycled 3D printing material and 10% virgin material, designed to deliver the same exceptional print performance and surface quality as the highest quality virgin materials.

rPETG Filament

CHEMICAL COMPOSITION

PETG is a thermoplastic copolyester material that is composed of polyethylene terephthalate (PET) and glycol-modified PET.

MATERIAL PROPERTIES

Property	Result
Density	1.27 g/cm ³
Melt Flow Rate	N/A
Melt Flow Rate	N/A
Melt Density	N/A

MECHANICAL PROPERTIES

Property	Testing Method	Result
Young's Modulus	ISO 527	N/A
Tensile Strength At Yield	ISO 527	26 MPa
Tensile Strength	ISO 527	N/A
Tensile Stress At Break	ISO 527	53 MPa
Tensile Modulus	ISO 527	N/A
Elongation At Break	ISO 37	75 MPa
Bending Modulus	ISO 178	2150 MPa
Charpy Notched Impact, 23°C	ISO 179	80 J/m @ 23°C
Notched Izod Impact	ISO 180	N/A
Hardness	ISO 7619	90 Shore Hardness D

Disclaimer: This data sheet provides typical values for reference and comparison purposes only. These values should not be used for quality control purposes or as design specifications. It is important to note that the actual values may vary depending on the printing conditions used. Additionally, the end-use performance of the printed parts will depend on various factors, such as part design, environmental conditions, and printing conditions. It is important to remember that product specifications may change without notice. As a user, it is your responsibility to determine the safety, suitability, and proper disposal/recycling practices of the materials provided by STANDARD PRINT CO. for your specific application. It is also important to note that STANDARD PRINT CO. makes no warranty of any kind, unless announced separately, to the fitness for any use

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or application. Furthermore, STANDARD PRINT CO. cannot be held liable for any damage, injury, or loss resulting from the use of STANDARD PRINT CO. materials in any application. Therefore, we recommend that you exercise caution and carefully evaluate all aspects of your application before using our materials.

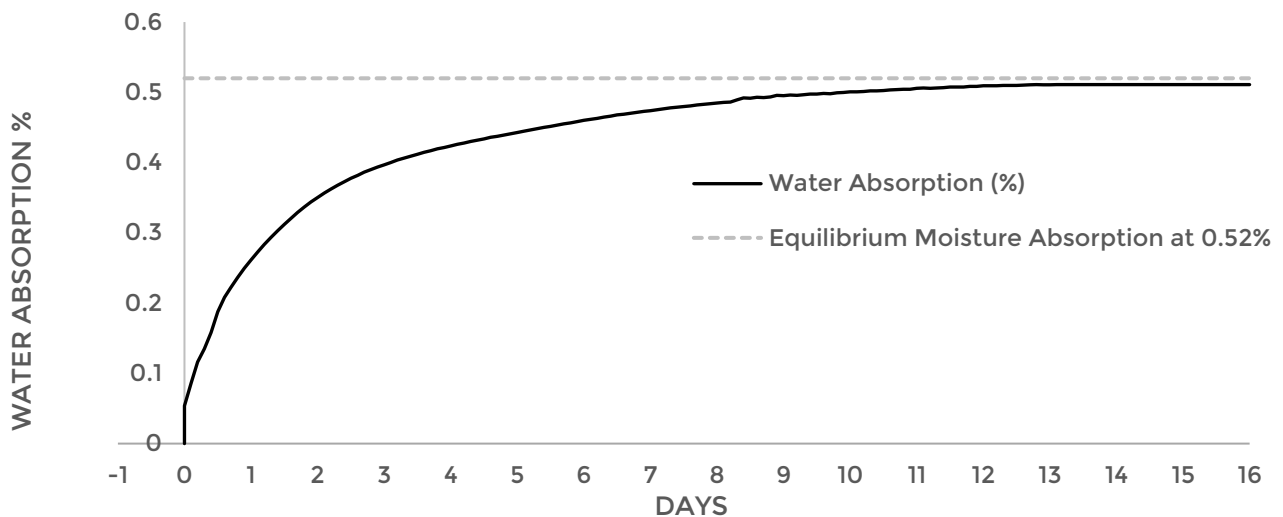
THERMAL PROPERTIES

Property	Testing Method	Result
Glass Transition Temperature (Tg)	DSC	80 °C
Vcat Softening Temperature (VST)	DCS	83 °C @ 0.45 MPa
Heat Deflection Temperature (HDT)	ISO 75	70 °C @ 1.8 MPa
Melt Temperature	DCS	74 °C
Flammability	UL-94	HB @ 1.6mm V-2 @3.2mm

ENVIRONMENTAL RESISTANCE

UV Resistance	Good
Weather Resistance	Excellent

MOISTURE ABSORPTION CURVE (23°C at 75% RH)



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CHEMICAL RESISTANCE

Substance	Resistance
Water	Great Resistance
Salt Water	Great Resistance
Weak Acids	Great Resistance
Weak Base	Great Resistance
Strong Acids	Great Resistance
Strong Bases	Great Resistance
Isopropyl Alcohol	Great Resistance
Ethanol	Moderate Resistance
Acetone	Poor Resistance

The resistance of each material to different chemicals can vary depending on the specific chemical, concentration, temperature, and duration of exposure. This table provides a general overview of the chemical resistance of RPETG, but it is always a good idea to test the compatibility of each material with specific chemicals in the intended application.

PRINTING PARAMETERS

Printer Type:	Cartesian / Delta
Extruder Type:	Direct Drive/Bowden Tube
Layer Height:	0.1mm - 0.3mm
Fill Density:	0 - 100%
Shell Thickness:	>0.4 mm
Print Speed:	20 - 60 mm/s
Printing Temperature:	210 - 230°C
Build Bed Temperature:	40 - 60°C
Recommended Retraction Speed:	30 - 50 mm/s
Recommended Retraction Distance:	3 - 10 mm
Cooling Fan:	Yes

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TEST SPECIMEN PRINTING PARAMETERS

Printing Temperature	230 °C
Bed Temperature	60
Shells	2
Top & Bottom Layers	4 %
Infill	100 °C
Ambient Temperature	27
Cooling Fan	OFF

Disclaimer: The material data properties presented here are for informational purposes only and are based on the materials that we believe we collect to produce our recycled PETG product. As this is a recycled product, the actual material properties may vary from batch to batch and the values presented here should be considered as indicative only. We cannot guarantee the accuracy or completeness of the data presented here and assume no liability for any errors or omissions. Users of our rPETG product are responsible for testing and verifying the suitability of the material for their specific applications.