rPET

Polyethylene Terephthalate

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Background

Polyethylene Terephthalate (PET) is a durable material with either a glossy appearance or opaque appearance depending on its crystallinity.

PET is one of the most common plastics in the world, used in cases like sailcloths, water bottles, and clothes.

In the world of 3D printing, PET is often used in the form of PETG which contains glycol.

PET and PETG fill a role between PLA and ABS being a tough material and relatively easy to work with.

With the rise of pellet printing, PET is growing in relevance as a 3D printing material.

PET is also one of the most commonly recycled plastics, making its potential use in 3D printing even more attractive.

For those looking for durable parts and a closed loop 3D printing solution, PET is a great material to use.

Applications

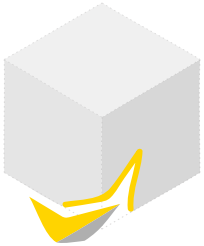
PET excels when you take advantage of its material properties and its prevalence.

Its material properties allow it to perform well in a variety of applications.

Its prevalence also makes it a great candidate for recycling and closed loop use cases.

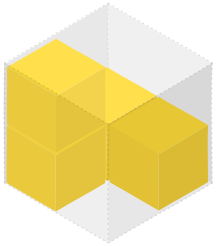
- Containers
- Functional Parts
- Furniture

Material Properties



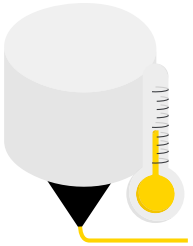
Glass Transition

~70 °C



Density

1.38 g/cm³



Extrusion Temperature

210-240 °C

Printer Settings

Top Temp Zone

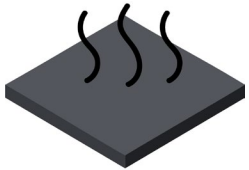
225 °C

Middle Temp Zone

220 °C

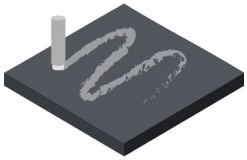
Bottom Temp Zone

185 °C



Heated Bed Temperature

60 °C

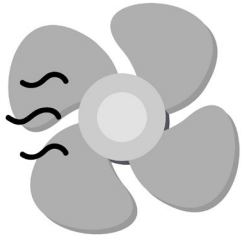


Bed Adhesion

Adhesive Needed

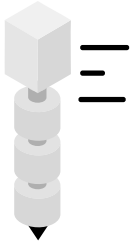
Enclosure

Do Not Use



Fans

-



Printing Speed

3,600 mm/min

Sustainability

PET is one of the most commonly used recyclable plastics, and often seen in the form of water bottles.

The polymer chains that make up PET easily break apart at low temperatures, making PET an easy material to recycle.

Being such a common material, there is great potential of recycling and reusing PET.

One area of potential use is recycling PET as feedstock for pellet printers like Gigabot X.

PET is easily recycled in most recycling centers, and an excellent choice for closed loop solutions due to its prevalence.

rPET Validated Suppliers

Innofill
rPET

Questions?

Please, do not hesitate to reach out to **support@re3d.org** via email or visit **re3d.org/support** if you have any more questions about rPET.

Want to validate your material?

Would you like to see your material listed as a validated supplier? Our engineers welcome your pellets or reground material! Email us at **info@re3d.org** for more information.