



rPC

Recycled  
Polycarbonate

|                     |    |
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# Background

Polycarbonate (PC) is a high performance material intended for use in engineering and industrial settings.

As suggested by its name, PC contains carbonate groups that contribute significantly to its strength and toughness.

PC also has excellent temperature resistance, making it useful in high temperature applications as well.

Recycled polycarbonate (rPC) comes from regrinding a source of polycarbonate, like failed prints.

If you are looking for a strong, industrial material that is also sustainable, rPC is an excellent choice.

# Applications

rPC's high performing properties make it a good choice for industrial applications.

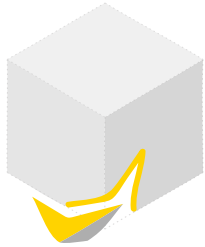
Parts made from rPC can withstand the demanding environment found in industry.

rPC is also perfect for any parts that need to resist high temperatures.

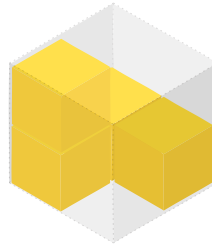
rPC is an eco-friendly solution for industrial material when used in pellet printers like Gigabot X since it reuses PC that would typically be discarded.

- > FunctionalParts
- > Outdoor Uses

# Material Properties



**Glass Transition**  
147 °C



**Density**  
1.20 g/cm<sup>3</sup>



**Extrusion Temperature**  
240-270 °C

# Printer Settings



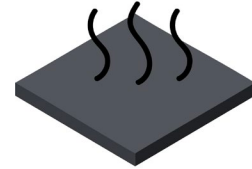
**Top Temp Zone**  
235 °C



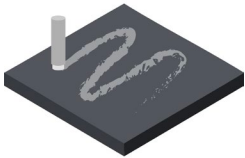
**Middle Temp Zone**  
230 °C



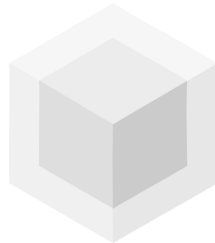
**Bottom Temp Zone**  
215 °C



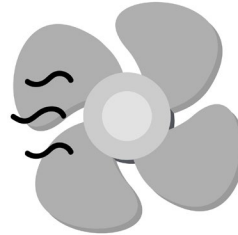
**Heated Bed Temperature**  
100 °C



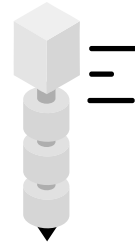
**Bed Adhesion**  
Adhesive Recommended



**Enclosure**  
Required



**Fans**  
-



**Printing Speed**  
3,600 mm/min

# Sustainability

rPC often comes from regrinding a source of polycarbonate waste.

This material is often considered for use in a pellet extrusion machine such as Gigabot X.

Polycarbonate is not usually supported by recycling centers since it is grouped into resin code 7 with “other plastics”.

Polycarbonate also risks producing bisphenol A, commonly known as BPA.

# Questions?

Please, do not hesitate to reach out to [support@re3d.org](mailto:support@re3d.org) via email or visit [re3d.org/support](https://re3d.org/support) if you have any more questions about rPC.

# 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](mailto:info@re3d.org) for more information.