

PET (Recycling Code 1): Polyethylene terephthalate

PET is a very strong plastic that can be easily recognised for its transparent look - all water and soda bottles are made from PET as well as some jars, combs, bags, tote bags, carpets and ropes, and is recycled more commonly. Recently, PET has been recycled into yarns and made into clothes. This plastic is a bit more complex to work with, we advise to start with other plastics. For 3d printing it is used as PETG the G means it is for modified with glycol.

Properties: lightweight, impact resistant, rigid/semi-rigid

Pros: strong and stiff, water and oxide barrier, good electrical properties

Cons: high mold shrinkage, heat degradation, harmful fumes

Safety: Medium

Warning ⚠️ harmful fumes during processing, some research suggesting harmful materials seeping through long term use

Common uses: blow molded bottles (water bottles, soda/juice bottles), wrapping, film, electrical fittings

What can you build with it?

Petg melted to plates can be cut with CNC. It is also possible to melt it in silicon molds so you can use it widely, for example magnet for fridge or plates for furniture.

Which temperature to use?

PETG: You can start with 180 °C

