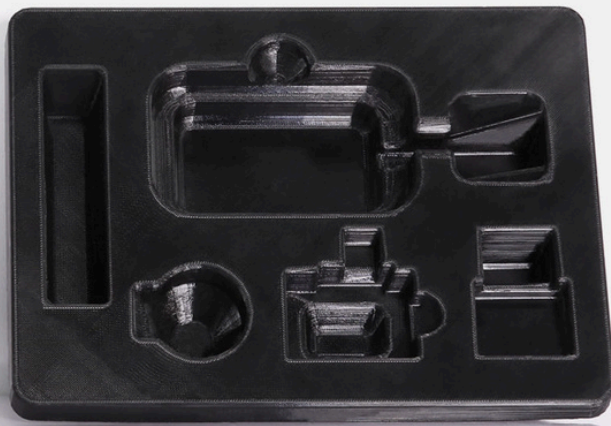


PETG

INDUSTRIAL GRADE MATERIALS FOR FDM 3D PRINTING



MATERIAL NAME

PETG

COLOR

Black & White

PROCESS

FDM

PRODUCT DESCRIPTION

PETG is a strong and durable plastic-like ABS but harmless to human health. PETG is made with one of the most common synthetic materials - polyethene Terephthalate (PET), modified with Glycol. Thanks to this, PETG is much more rigid, stiffer, more precise and easier to use in 3D printing and machining than PET.

TYPICAL APPLICATIONS

- Outdoor items like planter pots bird cages and watering cans
- Automotive parts with durability and heat resistance
- Outdoor toys requiring impact resistance and long-term use

PRODUCT SAFETY

Engineering plastics are fine to touch under normal circumstances, but a very small number of people may have allergic reactions to the additives in them. When melted at high temperatures, irritating gases may be released.

PRODUCT DELIVERY & WAREHOUSING

- **GOOD RESISTANCE**
Good resistance to water, acid, alkali, oil, etc.
- **WEAKNESS**
Some strong solvents may cause it to dissolve or swell.

PROPERTIES OF PRINTED MATERIAL

Properties	Test Method	Value
Hardness	/	/
Flexural modulus (Mpa)	ISO 178, GB/T 9341	XY: 2050 ± 120 MPa Z: 1810 ± 140 MPa
Flexural strength (Mpa)	ISO 178, GB/T 9341	XY: 64 ± 3 MPa Z: 48 ± 4 MPa
Tensile modulus (Mpa)	ISO 527, GB/T 1040	XY: 1810 ± 190 MPa Z: 1540 ± 130 MPa
Tensile strength (Mpa)	ISO 527, GB/T 1040	XY: 34 ± 4 MPa Z: 23 ± 4 MPa
Elongation at break	ISO 527, GB/T 1040	XY: 8.6 ± 1.2% Z: 5.1 ± 0.8%
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ISO 179, GB/T 1043	XY: 31.5 ± 2.2 kJ/m ² ; 6.2 ± 1.8 kJ/m ² (notched)
Heat deflection temperature (°C)	ISO 75	HDT @0.45 MPa : 69°C HDT @1.8 MPa: 62°C
Glass transition,Tg (°C)	DSC, 10°C/min	66 °C
Coefficient of thermal expansion(/°C)	/	/
Density (g/cm ³)	ISO 1183	1.28 g/cm ³

Tips: Want to explore a wider range of materials? Check out <https://www.unionfab.com/materials>



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