

DESCRIPTION

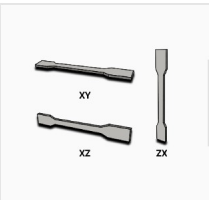
AzureFilm PCTG (copolyester) offers excellent mechanical strength, higher impact resistance and increased transparency. It is designed to withstand higher temperatures and is more durable than our PETG Original grade. The material is easy to print and can be used in open environments.

KEY BENEFITS

- Excellent mechanical strength
- Higher impact resistance
- Increased transparency
- Enhanced durability
- Easy to print
- Open-printer friendly

MECHANICAL PROPERTIES





**TEST METHOD**

Each property below lists its single measured value alongside the test standard it was measured to. Measured on 3D-printed specimens.

| PROPERTY                        | TEST METHOD                                                                                                        | VALUE    |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------|----------|
| Tensile yield stress            | ISO 527-2                                                                                                          | 44.9 MPa |
| Tensile modulus                 | ISO 527-2                                                                                                          | 1930 MPa |
| Tensile strain (yield)          | ISO 527-2                                                                                                          | 4.5 %    |
| Tensile strain (break)          | ISO 527-2                                                                                                          | 4.3 %    |
| Nominal tensile strain at break | ISO 527-2                                                                                                          | 320 %    |
| Flexural modulus                | ISO 178                                                                                                            | 1780 MPa |
| Flexural strength               | ISO 178                                                                                                            | 56.4 MPa |
| TEST SPECIMENS                  | Printer Bambu Lab    Nozzle 0.4 mm    Infill 100%    Layer height 0.2 mm    Nozzle temp. 240 °C    Bed temp. 80 °C |          |
| Print speed 200 mm/s            |                                                                                                                    |          |

| PRINTING RECOMMENDATIONS |            |
|--------------------------|------------|
| Printing temp.           | 250 °C     |
| Bed temp.                | 65 °C      |
| Chamber temp.            | 40 °C      |
| Recommended speed        | 60–80 mm/s |
| Max printing speed       | ≤80 mm/s   |
| Retraction               | 0.8 mm     |

| PHYSICAL & THERMAL |            |             |
|--------------------|------------|-------------|
| Material           | —          | Copolyester |
| Color              | —          | Transparent |
| Specific density   | ASTM D-792 | 1.26 g/cm³  |

| HANDLING, STORAGE & THERMAL  |            |                       |            |
|------------------------------|------------|-----------------------|------------|
| Max flow rate                | 6 mm³/s    | Max-flow test printer | Prusa MK4S |
| Heat deflection temp.        | 74 °C      | Vicat softening temp. | 79 °C      |
| Glass transition temp.       | 80 °C      | Drying temp.          | 65 °C      |
| Drying time                  | 4–6 h      | Enclosed printer      | Optional   |
| Multi-material compatibility | Compatible |                       |            |

TIPS & TRICKS

- **Dry thoroughly before printing**  
Dry at 65 °C for 4–6 h and store sealed.
- **Use PETG-style bed protection**  
Glue stick can act as a release layer on very sticky beds.
- **Keep cooling moderate**  
Excessive cooling can reduce layer bonding.
- **Use it where toughness matters**  
PCTG is a good fit for impact-resistant functional parts.
- **Watch bridging at higher temperatures**  
Reduce speed or cooling balance if bridges sag.
- **Recommended print speed**  
Use 60–80 mm/s for normal prints; Max Printing Speed is the tested ceiling.

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