



## Description

**PC-ABS** is an incredibly strong automotive grade material perfect for mechanical parts and other technical applications.

The addition of Polycarbonate (PC) to Acrylonitrile Butadiene Styrene (ABS) creates a material that prints smoothly with nearly perfect interlayer adhesion and a smooth surface gloss.

## Typical properties

|                     | Standard | Value    | Unit                    |
|---------------------|----------|----------|-------------------------|
| Specific gravity    | ISO 1133 | 1.04     | g/cc                    |
| Melt flow rate      | ISO 1133 | 5        | cm <sup>3</sup> /10 min |
| Melting temp.       | ISO 294  | 250 ± 10 | °C                      |
| Heat deflect. temp. | ISO 75   | 120      | °C                      |

## Typical properties (3D printed)

|                   | Standard  | XY Value | XZ Value | ZX Value | Unit              |
|-------------------|-----------|----------|----------|----------|-------------------|
| Tensile Strength  | ISO 527-2 | 41.4     | 42.7     | 18.3     | MPa               |
| Yield Strength    | ISO 527-2 | 33.3     | 32.8     | /        | MPa               |
| Tensile Modulus   | ISO 527-2 | 2000     | 2000     | 1800     | MPa               |
| Strain at Yield   | ISO 527-2 | 5.3      | 4.0      | 1.2      | %                 |
| Flexural Strength | ISO 178   | 65.7     | 67.0     | 26.8     | MPa               |
| Flexural Modus    | ISO 178   | 2100     | 2200     | 1900     | MPa               |
| Impact Strength   | ISO 179   | 25       | /        | /        | kJ/m <sup>2</sup> |

All specimens were printed with 100% infill, 2 shells and a layer height of 0.2mm

## Printing recommendations

|                | Standard | Value         | Unit |
|----------------|----------|---------------|------|
| Printing temp. | AF       | 270 ± 10      | °C   |
| Bed temp.      | AF       | 100-110       | °C   |
| Printing speed | AF       | ≤350          | mm/s |
| Cooling        | AF       | 30            | %    |
| Bed surface    | /        | PEI, BUILDTAK | /    |

