

ABS · Technical Data Sheet

General Features

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|---|---|---|
| Chemical Name Acrylonitrile Butadiene Styrene | Benefits <ul style="list-style-type: none"> • High impact resistance, slightly flexible • UV, heat and abrasion resistance • Ideal for post-processing for a shiny, smooth surface (advanced users) | Applications Most common material used in the 3D Printing industry, jigs and fixtures, prototypes, mechanical housings, automotive parts, ideal for functional prototypes stronger than PLA |
|---|---|---|

Filament Characteristics

| | | |
|-------------------------|----------|----------|
| Diameter | Ø 1.75mm | Ø 2.85mm |
| Meters per spool | 299.82m | 113.044m |
| Weight per meter | 2.5g | 6.63g |
| Tolerance | ±0.02mm | ±0.03mm |

Material Properties

| | | Typical value | ASTM Method |
|--|------------|---------------------|-------------|
| Elongation | % | 15 | D638 |
| Tensile Strength | Mpa | 47.56 (6,790) (psi) | D638 |
| Flexural Strength | Mpa | 70.6 (10,080) (psi) | D790 |
| Flexural Modulus | Mpa | 2.4 (347,900) (psi) | D790 |
| Izod Impact Strength (3.2mm, 23C) | kgfcm /cm2 | 24 (4.4) (ft-lb/in) | D256 |
| Izod Impact Strength (6.4mm, 23C) | kgfcm /cm2 | 20 (3.7) (ft-lb/in) | D256 |
| Rockwell Hardness | R Scale | 109 | D785 |
| Density | g/cm3 | 1.04 | D792 |
| Melt Flow Index (220C, 10kg) | g/min | 38g /10 min | D1238 |
| Mold Shrinkage | % | 0.5 - 0.8 | D955 |
| Water Absorption | % | - | D570 |

Recommended printer settings

| | |
|------------------------------|------------------|
| Print temperature | 235±5°C |
| Print bed temperature | 95°C First/Later |
| Cooling fans | Off |
| Closed environment | Required |
| Adhesive | Required |

Available Colours

| Colour | Pantone Code | Colour | Pantone Code | Colour | Pantone Code |
|--------|--------------|--------|--------------|---------|--------------|
| Black | 6C | Orange | 1505 C | Gray | 8402 C |
| Blue | 2935 C | Red | 485 C | Natural | -- |
| Green | 17-6153 TCX | White | 11-4001 | Yellow | 1235 |

WARNING!

This product can expose you to chemicals including styrene, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

Disclaimer:

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