

## ABS · Technical Data Sheet

### General Features

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

<b>Diameter</b>	Ø 1.75mm	Ø 2.85mm
<b>Meters per spool</b>	299.82m	113.044m
<b>Weight per meter</b>	2.5g	6.63g
<b>Tolerance</b>	±0.02mm	±0.03mm

### Material Properties

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

### Recommended printer settings

<b>Print temperature</b>	235±5°C
<b>Print bed temperature</b>	95°C First/Later
<b>Cooling fans</b>	Off
<b>Closed environment</b>	Required
<b>Adhesive</b>	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

#### Disclaimer:

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**⚠ WARNING:** This Filament - when used in the operation of 3D Printers or 3D Pens - can expose you and others in the same room to styrene, a chemical known to the State of California to cause cancer. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). **ALWAYS OPERATE THIS PRODUCT IN A WELL-VENTILATED AREA.**