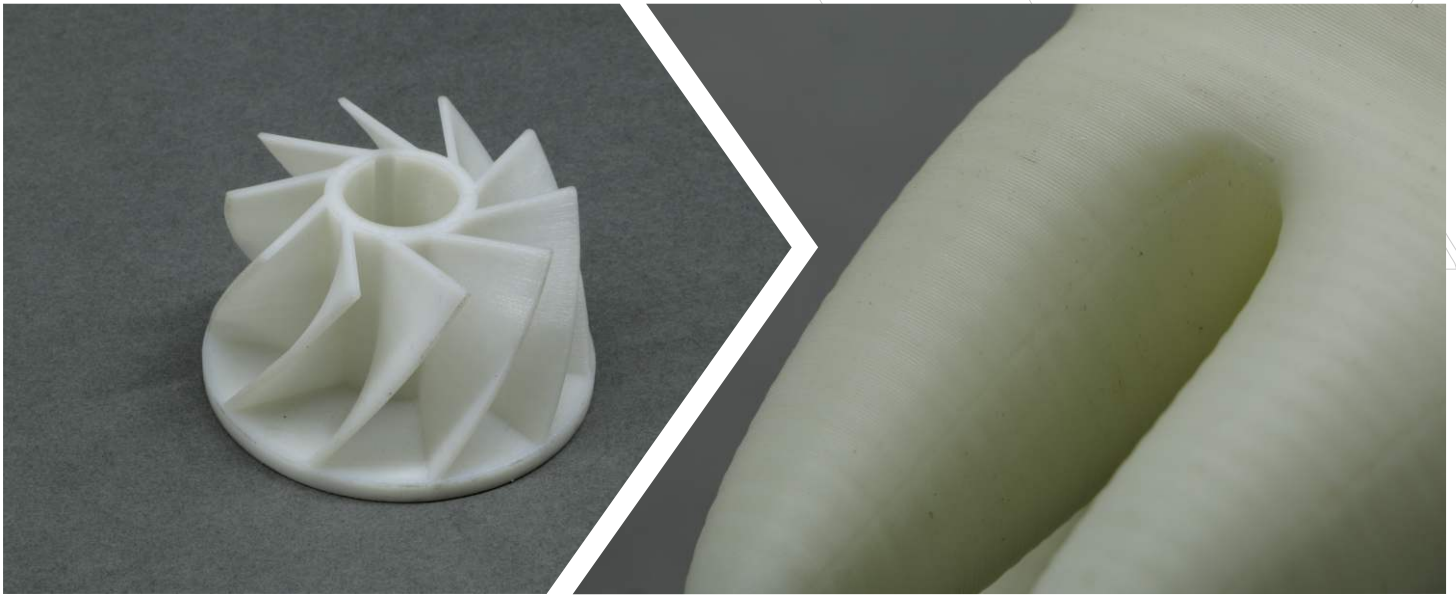


**ABS****Generic Data :**

Technical Name	Z-ABS
Process	Fused Filament Fabrication (FFF)
Layer Thickness	140 $\mu\text{m}$
Accuracy	(+/-)300 $\mu\text{m}$
Maximum Build Size	300x300x300 mm

Acrylonitrile Butadiene Styrene (ABS) is a widely used thermoplastic throughout the industry. When combined with FFF systems, the material is ideal for rapid prototyping. ABS comes in the form of a filament. It is well suited for cost-effective prototypes and models requiring form and visual validation.

ABS filament comes in white color, and the parts have a rough surface finish. Since parts are fabricated using FFF technology, support structures are generated on the parts. Removal of support structures may leave burr marks on the surface. The surface can later be polished to achieve a relatively better surface finish.

**Characteristics**

- + Honeycomb structure to make the models hollow
- + Easy material to work with for post-processing
- Rough surface finish
- Support structure generation

**Applications**

- ✓ Cost-effective prototypes
- ✓ Prototypes for form testing
- ✓ Concept models

Material Properties	Value	Unit	Standard Test Method
Density	1.04	g/cm <sup>3</sup>	ASTM DATA
Filament Color	White	-	-
<b>Mechanical Properties</b>			
Tensile Modulus	1860	MPa	ASTM DATA
Ultimate Tensile Strength	30.3	MPa	ASTM DATA
Elongation at Break	1.8	%	ISO DATA
Charpy notched impact strength	1.6	J/cm <sup>2</sup>	ISO DATA
Izod Impact notched (23°C)	1.33	J/cm	ASTM DATA
Hardness, Rockwell R	108	-	-
<b>Thermal Properties</b>			
Heat Deflection Temp. under load @ 1.8 MPa	98.9	°C	Annealed; ASTM DATA
Vicat Softening Temperature	104	°C	-