

## ABS (Acrylonitrile-Butadiene-Styrene)

ABS is a low cost engineering plastic that is easy to machine and fabricate. ABS is an ideal material for structural applications when impact resistance, strength, and stiffness are required. It is widely used for machining pre-production prototypes since it has excellent dimensional stability and is easy to paint and glue. Natural (beige) ABS and black ABS are FDA compliant for use in food processing applications. The following physical property information is based on typical values of the base acrylonitrile-butadiene-styrene resin.

- Excellent impact resistance
- Good machinability
- Excellent aesthetic qualities
- Easy to paint and glue
- Good strength and stiffness
- Low cost

### Applications

- Machined prototypes
- Structural components
- Support blocks
- Housings
- Covers

Property	ASTM Test Method	Units	Nominal Value
Density	D1505	g/cc	1.03
Tensile Strength @Yield	D638	psi	>6000
Elongation @ Break	D638	%	40
Flexural Modulus	D790	psi	300,000
Flexural Yield Strength	D790	psi	10,700
Durometer	D785	R scale	102
Izod Impact	D256	ft lbs/in <sup>2</sup>	7.7
Vicat Softening Temp.	D1525	°F	219°
Heat Deflection Temp. 66 psi	D648	°F	201°
Flammability	UL94	UL94	HB
<p>This black material is made entirely from FDA approved materials and is RoHS compliant. It does not contain any of the 29 substances of very high concern based on the European Chemical Agency.</p>			

*NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.*