

MAKERBOT REAL ABS | Data Sheet

Real, Production-Grade ABS for Manufacturing Applications

MakerBot real ABS is a real, production-grade ABS material formulation for creating strong and durable functional prototypes, manufacturing tools, and end-use parts. Unlike desktop ABS material formulations containing damaging modifiers and stabilizers that lead to warping and cracking, this real ABS formulation empowers engineers to achieve part properties close to injection molded parts with high dimensional accuracy, durability, and repeatability. Outpace your competition with better materials and better parts. Only with METHOD and MakerBot real ABS.

84ºC

heat deflection

15ºC hotter than typical modified ABS for desktop 3D printers

2400 MPA

tensile modulus

26% more rigid than typical modified ABS for desktop 3D printers

42 MPA

tensile strength

12% stronger than typical modified ABS for desktop 3D printers

±0.007 IN (0.2 MM)

printed part dimensional accuracy with METHOD X

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END-USE PARTS

Custom parts, low volume production, and components that require high geometric complexity

Applications include:

- Liquid containers
- Signage and graphic displays
- Enclosures for electrical equipment

MANUFACTURING TOOLS

Create tools, jigs, and fixtures at lower cost, with faster turnaround, and without the need for expensive skilled labor

Applications include:

- Manufacturing tools and aids
- Robotic end effectors
- Product testing tools

FUNCTIONAL PROTOTYPES

Get true fit and feel, test in real-world and beyond real-world scenarios, and expedite time to market in the same material as the final injection-molded part

Applications include:

- Consumer product prototypes
- Appliance assemblies
- Automotive parts

ABS (acrylonitrile butadiene styrene) is one of the most common plastics used in injection-molding, found in many common products such as LEGOS, computer keys, power-tool housings, and automotive parts.

	Imperial	Metric
Heat Deflection @ 66psi (ASTM 648)	183ºF	84ºC
Flexural Strength (Method 1, 0.05”/min)	9,427 psi	65 MPa
Flexural Modulus (Method 1, 0.05”/min)	11200 psi	77 MPa
Tensile Strength at yield (Type 1, 0.125”, 0.2”/min)	6,236 psi	43 MPa
Tensile Modulus (ISO 527)	348,090 psi	2,400 MPa
Strain at Yield - Elongation (%)	2.6%	2.6%
Notched Impact Strength (ASTM D256)	0.48 ft-lb/in	26 J/m
Unnotched Impact Strength (ASTM D256)	31 ft-lb/in	1650 J/m

MakerBot METHOD

MakerBot METHOD bridges the gap between industrial and desktop 3D printing. It was developed from the ground up leveraging industry-leading Stratasys® patents including a heated build chamber, precision dissolvable supports, and dry-sealed material bays. Engineers and designers use METHOD to create prototypes, jigs and fixtures, and end-use parts.

LEARN MORE AT MAKERBOT.COM/METHOD

Specs are based on internal testing of injection molded specimens of METHOD X ABS compared to ABS from a leading desktop 3D printer competitor. Tensile testing was performed according to ASTM D638 and HDT testing according to ASTM D648.Based on internal testing of injection molded specimens of METHOD X ABS compared to ABS from a leading desktop 3D printer competitor.