

# ABS Prime



Made from virgin LG Chem HI121H resin, a high grade, impact resistant acrylonitrile butadiene styrene, AON3D ABS Prime filament offers exceptional strength, impact resistance, and thermal stability, making it well-suited for functional prototypes, jigs, and light- to medium-duty end-use parts. For optimal results, print in a heated chamber to minimize warping and improve interlayer adhesion, ensuring clean, dimensionally stable parts.

- Made with engineering grade impact resistant ABS
- Tough and impact-resistant; suitable for functional prints
- Great dimensional accuracy, low warping
- RoHS compliant (Directive 2011/65/EU, Annex II; recast of 2002/95/EC)
- NSF/ANSI 51 certified for Food Equipment Materials
- UL / cUL Certified – Yellow Card E302314

## Filament Properties

Properties	Test Methods	Values
Diameter	-	1.75 ± 0.03 mm
Density	ASTM D792	1.05 g/cm <sup>3</sup>
Melt Density @220°C, 10KG	ASTM D1238	22 g/10 min
Glass Transition Temperature (T <sub>g</sub> )	DSC	95°C
UL Flammability Class. @1.14mm	UL 94	94HB

## Print Parameters & Specimens Dimensions

Printing Direction	XY
Printing Speed	45 mm/s
Infill	100% - rectilinear
Infill Angle	45°/-45°
Nozzle Temperature	240°C
Bed T°	90°C
Nozzle	0.4 mm
Layer Height	0.25 mm

## Thermal Properties

Properties	Test Methods	Values
Heat Distortion Temp @ 0.45MPa	ASTM D648	85°C
Decomposition Temperature	N/A	ASTM 3418

# ABS Prime



## Mechanical Properties

Properties	Test Methods	Values
Tensile Yield Strength	ASTM D638	49 MPa
Tensile Modulus	ASTM D638	2,350 MPa
Tensile Elongation	ASTM D638	30 %
Flexural Stress	ISO 178	78 MPa
Notched IZOD Impact	ASTM D256	225 J/m
Shrinkage Rate < 1%	ASTM D955	0.40 - 0.70% mm/mm

The technical data contained on this data sheet is furnished without charge or obligation and accepted at the recipient's sole risk. This data should not be used to establish specifications limits or used alone as a basis of the design. The data provided is not intended to substitute any testing that may be required to determine fitness for any specific use.