

# ABS TDS

## Acrylonitrile Butadiene Styrene

### Product Description

AzureFilm ABS (Acrylonitrile Butadiene Styrene) is a filament with high butadiene content, specially designed for applications that require ultra high impact toughness combined with good thermal resistance.

### Properties

Property of 3D printed specimens	Test condition	ABS
Tensile modulus [MPa]	1 mm/min	1,0
Tensile strength [MPa]	50 mm/min	24,2
Strain at break (Tensile) [%]	50 mm/min	5,6
Strain at tensile strength [%]	50 mm/min	3,3
Flexural modulus [GPa]	2 mm/min	1,6
Flexural strength [MPa]	2 mm/min	42,4
Flexural strain at flexural strength [%]	2 mm/min	3,7
Strain at break (Flexural) [%]	2 mm/min	No break
Charpy unnotched [kJ/m <sup>2</sup> ]	23 °C	75,2

### Test specimens print settings

3D printer: AzureFilm	Infill: 20 %	Nozzle temperature: 260 °C
Slicer: Cura	Shells: 2	Bed temperature: 90 °C
Nozzle: 0,4 mm	Layer height: 0,3 mm	Print speed: 50 mm/s

### Printing Recommendations

Nozzle temperature: 230 – 260 °C  
 Heated bed: Not required (recommended 90 – 120 °C)  
 Print speed: 50 – 100 mm/s  
 Build platform: Blue tape, Kapton tape, Glass bed, Wood bed