

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 ²]	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