

# ASA TDS

## Acrylonitrile Styrene Acrylate

### Product Description

AzureFilm ASA Filament is stiffer, stronger and flexible. Added UV resistance makes it perfect for external outdoor use. Most often it is used for the production of prototypes & engineering solutions that withstand higher temperatures or even exposure in the cold, rain, or sea water.

### Properties

Physical	Test Condition	Test Method	Unit	ASA
Specific Gravity[MPa]		ASTM D792	-	1,07
Tensile strength 3.2mm	50 mm/min	ASTM D638	kg/cm2	480
Tensile Elongation 3.2mm @ Yield	50 mm/min	ASTM D638	%	>6
@ Break	50 mm/min		%	25
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm2	21,200
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm2	770
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm2	22,500

### Test specimens print settings

3D printer: Creator 3

Slicer: FlashPrint

Nozzle diameter: 0,4 mm

Infill: 20 %

Shells: 2

Layer height: 0,3 mm

Nozzle temperature: 250 °C

Bed temperature: 110 °C

Print speed: 50 mm/s

### Printing Recommendations

Nozzle temperature: 240 – 260 °C

Heated bed: Recommended 90 – 120 °C)

Print speed: 50 – 100 mm/s

Build platform: Kapton tape, Glass bed, FlashForge original bed