



ASA Acrylonitrile Styrene Acrylate

Overview

ASA is a UV-resistant weatherable polymer. Our ASA has low-gloss matte finish that makes it a perfect filament for technical prints – especially when you don’t want the high-gloss surface finish often associated with many other 3D printing materials such as ABS, PETG, or PLA. ASA’s UV-stability makes it an ideal material for outdoor applications that will experience intense exposure to the sun and weather. ASA’s exceptional mechanical and thermal properties – coupled with excellent UV-stability – is why this resin is used by the Auto, Marine, and RV industries for exterior applications such as mirror housings, cowl covers, radiator grills, and sensor housings.

Mechanical Properties*

Type	Test Method	Imperial	Metric
Tensile Strength, Ultimate	ISO 527	6,236.62 psi	43 MPa
Tensile Modulus	ISO 527	291,525.9 psi	2010 MPa
Tensile Elongation at Break	ISO 527	10%	10%
Flexural Modulus	ISO 178	283,693.8	1956 MPa
Flexural Strength	ISO 178	11,312.9	78 MPa

Thermal & Electrical Properties

Property	Unit	Standard	Typical Value
Heat Distortion (HDT) @ 0.45MPa	°C	DSC	104
Surface Resistivity	Ohm/sq	IEC 60093	10 ¹²
UV Resistance		Very High	

*test parts have been printed according to XZ orientation, using 100% infill, 0.2mm layer thickness
 The information supplied is supplied as informative: user should use it as material selection tool and/or comparison with available materials. Printed part performance may differ from published value, depending on part orientation, printing parameters & environmental conditions. User must validate suitability of the printed part and its lawful to be used as desired: no warranty can be made (express or implied) to any use of Plural materials. We reserve the right to improve our polymer formulations and/or revise our technical data.

