

# Data Sheet: ASA

## Details

This is an amorphous thermoplastic with improved weather resistance. It is widely used in prototyping in 3D printing due to its UV resistance and excellent mechanical properties. It has good resistance to chemicals and heat, with a glass transition temperature of 100°C. ASA is available in a large variety of colours.

## Key Features

Excellent mechanical properties • Resistant to UV light and chemicals.

## Thermal Properties

Property	Value
Heat deflection [°C]	98
Glass transition temperature [°C]	108
Vicat softening temperature [°C]	103
Coefficient of thermal expansion [K <sup>-1</sup> · 10 <sup>-6</sup> ]	8.79
Thermal conductivity [W/m · K]	0.175
Specific heat capacity [J/kg · K]	1300

## Mechanical Properties

Property	Value
Tensile strength [MPa]	33
Modulus of elasticity [GPa]	2.01
Flexural strength [MPa]	60
Flexural modulus [GPa]	1.87

Hardness	82
Impact strength [KJ/m <sup>2</sup> ]	35
Elongation at break [%]	9

## Physical Properties

Property	Value
Density [g/cm <sup>3</sup> ]	1.05
Water Absorption [%]	0.2
Electrical Resistivity [ohm-cm]	$1.0 \times 10^{15}$

## Reference

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