purefil
of Switzerland

Acrylnitril-Styrol-Acrylester (**ASA**)

General

ASA is a styrene-based plastic that has similar properties to ABS (acrylonitrile butadiene styrene), but has much better weather and UV resistance. ASA is hard, scratch and impact resistant. If you are planning projects that require a plastic that can withstand UV rays and weather, acrylonitrile-styrene-acrylic ester is your first choice. ASA retains its original color for years and does not yellow. Compared to the standard plastics, ASA is characterized above all by higher strength, toughness, rigidity and resistance to fats and oils. This plastic not only has high heat resistance, it is also particularly resistant to chemicals and can be used for temperatures of up to 92 ° C.

advantageous

- Excellent weather resistance
- Excellent UV resistance
- Scratch resistant
- Greater strength and toughness than ABS
- particularly resistant to chemicals

disadvantageous

- more expensive than ABS
- little choice of colors

Processing data

Printing temperature
210-260 °C
Heated bed temperature
80-100 °C
Drying temperature
80 °C
Drying time
2-4 h

Technical specifications

Shrinkage (ASTM D955)	0.4-0.7	**%**
MFR (ASTM D1238)	16	g/10min
Yield stress (ASTM D638)	45	MPa
Elongation at yield (ASTM D638)	30	%
Elongation at break (ASTM D638)	35	%
Tensile modulus (ASTM D790)	2160	MPa
Heat deflection temperature 0.45 MPa (ASTM D648)	92	°C
Vicat softening temperature A (ASTM D1525)	105	°C
Thermal conductivity 23°C	-	W/(K*m)
Flammability (UL 94)	HB	
Density (ASTM D792)	1.07	g/cm^3

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