



**3D Industrie**

Additive Manufacturing  
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# ASA FILSHAPER

The mechanical properties of the copolymer (acrylonitrile-styrene acrylic) are very similar to ABS, but the replacement of butadiene with rubber acrylic will allow much greater resistance to the ultraviolet radiation of this polymer. Its other properties, such as: very good resistance to weather conditions, good chemical and thermal resistance and high gloss allowed to use ASA for manufacturing such elements as road signs, external signs, air conditioner housings, unpainted elements in the automotive industry, etc.

## IDENTIFICATION OF THE SUBSTANCE/MIXTURE

Chemical name of the product	Acrylonitrile styrene acrylate
Recommended use	Material for printing in FDM technology
Chemical type	Amorphous thermoplastic polymer
Nominal diameter	1.75 mm

## PHYSICAL AND MECHANICAL ATTRIBUTES

Physical attributes		
Description	Value	Test method
Density	1,06 g/cm <sup>3</sup>	ASTM D792
Moisture absorption	No data	-

Mechanical attributes		
Description	Value	Test method
Tensile strength	45 MPa	ASTM D638
Tension extension	23 %	ASTM D638
Bending strength	66 MPa	ASTM D790
Impact strength	118 kJ /m	ASTM D256
Hardness Shore D	105	ASTM D785

Thermal attributes		
Description	Value	Test method
Temperature of deflection under pressure 1.8MPa	85°C	ASTM D648
VICAT softening temperature	201°C	ISO R306 50N
Print temperature	>240°C	-

Inflammability		
Description	Value	Test method
Flammability class	No data	-

Electrical attributes		
Description	Value	Test method
Surface resistivity	No data	-
volume resistivity	No data	-

The product offered by us is characterized by a printing temperature of 240 ° C, and due to its medium shrinkage printing using this material requires the use of a heated table to control the process of cooling the finished print.

## OTHER INFORMATION

Product should be handled in accordance with good industrial hygiene, safety practice and all regulations. The information is being provided solely as a guideline for the safe handling, use, consumption, processing, storage, transportation, disposal and release of the Materials. The information may not be sufficient for such purposes, as it is based on producer's knowledge at the time of creating the document, the user should not place any reliance on the information provided.