ASA PELLET

TECHNICAL DATA SHEET VERSION 1.0

ASA

ASA is a pellet for 3d printing with exceptional weather resistance.



Unlike many plastic materials, the ASA maintains its colour and impact resistance, even after long-term outdoor use. It is mechanically robust, perfect for applications with need of resistance. Resistant to ultraviolet rays (U.V.), therefore does not goes yellow. Water resistant. It has great dimensional stability, so it does not present warping and the printing pieces have good tolerances.

APLICATIONS

- Prototyping of parts that require resistance to UV.
- Decoration objects and figures for outdoors.
- Industrial applications that require mechanical resistance.
- Water and weather resistant parts.

	TYPICAL VALUE	UNITS	TEST METHOD
PHYSICAL PROPERTIES			
Chemical name	Acrylonitrile Butadiene Styrene		
Material density	1,07	g/cm^3	ISO 1183
Melt Flow Index (MFI) (220˚C/10 kg)	12	g/10 min	ASTM D1238
MECHANICAL PROPERTIES			
Tensile strength at break (23˚C)	47,1	MPa	ASTM D638
Tensile module	2080	MPa	ASTM D638
Elongation at break	25	%	ASTM D638
Flexural strength	75,5	MPa	ASTM D790
Flexural module	75,5	MPa	ASTM D790
Notched Charpy impact (23˚C)	180	J/m	ASTM D256
THERMAL PROPERTIES			
Heat deflection temperature (0,45 MPa)	96	˚C	ASTM D648
Vicat A temperature	95	˚C	ASTM D1525

PROCESING RECOMMENDATIONS [1]	
Pre-drying	3 – 4 hours at 90˚C
Feed zone	20 – 40˚C
Melt zone	180 – 200˚C
Mixing zone	210 – 220˚C
Nozzle o die head	200 – 230˚C

1 (typical values, depending on the equipment require to be optimized)

SIZE	NET WEIGHT	GROSS WEIGHT	COLOR	PACKAGING
S	1 kg	1,1 kg	Natural (yellowness)	SmartBag, security seal.
M	5 kg	5,2 kg	Natural (yellowness)	Polyamide Bag, Small cardboard box.
L	15 kg	15,5 kg	Natural (yellowness)	Polyamide Bag, Small cardboard box

NOTICE: The information provided in the data sheets is intended for reference only. It should not be used as design or quality control values. Actual values may differ significantly depending on printing conditions. The final performance of printed components not only depends on materials, design and printing conditions are also important.