ABS PELLET

TECHNICAL DATA SHEET VERSION 1.1 DATE: 24/02/2023

ABS

ABS is one of the most widely used polymers, both in general use and in 3D printing.
This material stands out for having a high resistance to temperature and impacts.

It is easy to use, although it requires the use of a heated base, to prevent the phenomenon of contraction called warping from occurring.

In turn, this material allows all types of post-processing, from machining or painting, to applying an acetone steam bath to smooth, polish and increase mechanical properties.



	VALUES	UNIT OF MEASUREMENT	STANDARD
PHYSICAL PROPERTIES			
Chemical composition	Acrylonitrile-butadiene-styrene		
Density	1,04	g/cm^3	ISO 1183
Fluency index (220°C/10 kg)	19	cm^3/10 min	ISO 1133
MECHANICAL PROPERTIES			
Tensile strength (until breakage, 23°C)	45	MPa	ISO 527
Traction module	2300	MPa	ISO 527
Elongation at break	10	%	ISO 527
Flexion strength	65	MPa	ISO 178
Charpy Impact Force (notch, 23°C)	22	kJ/m^2	ISO 179
THERMAL PROPERTIES			
Thermal deflection temperature (0,45 MPa)	99	˚C	ISO 75
Resistance temperature Vicat B	105	˚C	ISO 306

PROCESSING RECOMMENDATIONS [1]

Pre-drying	2 – 4 hours at 80°C
Input to feed	20 – 40˚C
Fade zone	180 – 200˚C
Mixing zone	210 – 220˚C
Nozzle or outlet	200 – 230˚C

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

SIZE	NET WEIGHT	GROSS WEIGHT	COLOR	PACKAGING
S	1 kg	1,1 kg	Natural	SmartBag, security seal.
M	5 kg	5,2 kg	Natural	PA bag, small cardboard box.
L	15 kg	15,5 kg	Natural	PA bag, large 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.