

Fusement



3D PRINT THE FUTURE

ABS

Fusement's ABS or Acrylonitrile Butadiene Styrene, is a filament that withstands high temperatures, is machinable and soluble in acetone.

One of the qualities of our ABS filament is its strength, it is recyclable and easy to paint. It is a plastic that is used in multiple applications, household objects, industrial parts, automotive and many more.

	VALUES		UNIT OF MEASUREMENT	STANDARD
PHYSICAL PROPERTIES				
Chemical name	Acrylonitrile	Butadiene Styrene		
Density	1,04		g/cm ³	ASTM D792
MECHANICAL PROPERTIES				
	XY PLANE	ZX PLANE		
Tensile strength	32,9	12,5	MPa	ISO 527
Traction module	-	-	MPa	ISO 527
Flexion strength	68,1	20,7	MPa	ISO 178
Flexion module	2245,9	140,8	MPa	ISO 178
Elongation at maximum effort	1,4	0,7	%	ISO 527
Elongation to traction at break	2,6	0,7	%	ISO 527
Elongation by flexion at break	8,8	2,5	%	ISO 178
Charpy Impact Force (non-notched)	50,3	5,3	kJ/m ²	ISO 179
Hardness	-		Shore D	ISO 7619-1
THERMAL PROPERTIES				
Glass transition temperature (T _g)	104		°C	ISO 11357
VICAT B (50 N 50°C/h)	105		°C	ISO 306
HDT B (0,45 MPa)	99		°C	ISO 75

⁽¹⁾ Values obtained on printed specimens, nozzle 0,4 mm, rectilinear infill 100%, layer height 0,2 mm.

PRINTING PROPERTIES				
Printing temperature	230 – 250		°C	
Bed temperature	90 – 110		°C	
Layer fan	0 – 20		%	
Material flow	100		%	
Layer height	≥ 0,1		mm	
Nozzle recommendations	≥ 0,2		mm	
Print speed	30 – 50		mm/s	

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.



Machinable



Thermal resistance



Food Approved