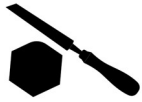


ABS

SMARTFIL 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.



Machinable



Thermal resistance



Food Approved

	VALUES	UNIT OF MEASUREMENT	STANDARD		
PHYSICAL PROPERTIES					
Chemical name	Acrylonitrile Butadiene Styrene				
Density	1,04	g/cm ³	ASTM D792		
MECHANICAL PROPERTIES ¹					
	XY PLANE	ZX PLANE			
Tensile strength	32,9	12,5	MPa		
Traction module	-	-	MPa		
Flexion strength	68,1	20,7	MPa		
Flexion module	2245,9	140,8	MPa		
Elongation at maximum effort	1,4	0,7	%		
Elongation to traction at break	2,6	0,7	%		
Elongation by flexion at break	8,8	2,5	%		
Charpy Impact Force (non-notched)	50,3	5,3	kJ/m ²		
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. For more information please contact us by email at info@smartmaterials.com or visit our website www.smartmaterials3d.com					
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			
SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	750 g	975 g	1,75 mm/2,85 mm	Several	SmartBag, security seal, desiccant bag.

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.