

### ABS MDT MAGNETO DETECTABLE

Smartfil ABS MDT (magnetically detectable thermoplastic) is a filament for 3D printing designed to be detected by any type of auto switch, even when the material is present in very small particles.

It is also recommended for the manufacturing of sensors, smart packagings, etc. In addition, this filament possess a high dimensional stability.

Material very tenacious, hard and rigid, with chemical resistance to abrasion.



	TYPICAL VALUE	UNITS	TEST METHOD		
<b>PHYSICAL PROPERTIES</b>					
Chemical Name	ABS compound				
Material Density	1.29	g/cm <sup>3</sup>	ISO 1183		
<b>MECHANICAL PROPERTIES</b>					
Tensile Stress at break	20	MPa	ISO 527		
Tensile elongation at break	8.5	%	ISO 527		
Tensile Modulus	1800	MPa	ISO 527		
Charpy Impact Strength (notched, 23°)	8.5	kJ/m <sup>2</sup>	ISO 179/1eU		
<b>THERMAL PROPERTIES</b>					
Heat Deflection Temperature (HDT-A)	75	°C	ISO 75		
Heat Deflection Temperature (HDT-B)	90	°C	ISO 75		
Vicat Softening Temperature B50	80	°C	UL746B		
<b>ELECTRICAL PROPERTIES</b>					
Surface resistance max. *	1 <sup>12</sup>	Ohm	ASTM D 257		
<small>* Values obtained under tests on specimens obtained by injection</small>					
<b>PRINTING PROPERTIES</b>					
Print Temperature	260-280	°C			
Hot Pad	80-100	°C			
Fan Layer	OFF	%			
Print Speed	30-50	mm/s			
SIZE	NET W.	GROSS W.	DIAMETERS	COLOR	PACKAGING
M	750 g	975 g	1.75 mm/2.85 mm	Natural	SmartBag, security seal, desiccant bag

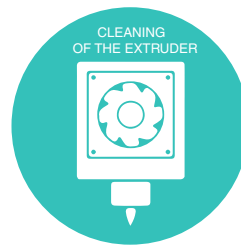
# USE RECOMENDATIONS

## RECOMMENDED NOZZLE DIAMETER

It is necessary to use a 0.6 mm diameter nozzle and a layer height equal to or greater than 0.2 mm for the manufacture of parts, with this we avoid that the load incorporated to the material can block the extruder.

## CLEANING THE EXTRUDER AFTER USE

The use of SMART CLEAN is recommended once the material is used to prevent it from staining subsequent prints.



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

Smart Materials assumes no responsibility for any damage, injury or loss produced by the use of its filaments in any particular application.