

# Technical Datasheet

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## inFil PETG MDT

The esFil PETG MDT filament is a PETG-based filament manufactured in Spain. PETG is the perfect material for manufacturing parts for the food industry using 3D printing. The MDT filament can be detected by the systems commonly used in this industry to prevent contamination in the final product. It can be detected even when present in very small quantities. This filament is suitable for contact with food.

This filament is as easy to print as PLA, but its mechanical properties are far superior. PETG is a polymer obtained from PET, the plastic used to make bottles. The addition of Glycol modifies the properties of the polymer making it easier to print, less brittle and more transparent. The coefficient of thermal expansion of PETG is very low, so you never experience warping problems during printing.

Unlike other materials, PETG has a greater tendency to leave threads in prints, which must be combated with higher shrinkage and a decrease in print temperature. When the impression of the material is correct, you will obtain durable and resistant pieces that can be used both indoors and outdoors.

Vacuum packed in 90 micron bags with a silica gel bag inside to guarantee its conservation and the absence of humidity. Available in 1Kg filament spools. Filament available with diameter 1.75 mm.

Physical properties	Conditions	Test Method	Typical Values
Density		ISO 1183	1,57 g/cc
Thermal properties	Conditions	Test Method	Typical Values
Glass transition temperature		ISO 306	72 °C
Mechanical properties	Conditions	Test Method	Typical Values
Tensile strength		ISO 527-2	35 MPa
Tensile elongation		ISO 527-2	3,6 %
IZOD	Unnotched	ISO 179	19 KJ/m <sup>2</sup>
IZOD	Notched	ISO 179	2,9 KJ/m <sup>2</sup>
Fuerza de flexión		ISO 178	68 MPa
Módulo de flexión		ISO 178	2450 MPa
Parámetros de impresión			Typical Values
Printing Temperature			230 - 240 °C
Heated Bed temperature			80 – 90 °C
Printing speed			20-65 mm/s
Retraction			3 mm
Adhesion			Spray
Parámetros de calidad			Typical Values
Tolerance	max		0,03 mm
Tolerance	media		+/- 0,03 mm
Standard deviation	max		0,02 mm
Ovality	max		2 %

The test values provided in this technical data sheet are to be considered indicative and do not represent any contractual specification. Please note that under certain conditions, properties may be affected. The application, use and processing of our products are the responsibility of the user.