

ABS.M34

Everfil™ | 3D  
Filament

TECHNICAL SPECIFICATION

DESCRIPTION

**Everfil™ ABS-M34** Acrylonitrile-butadiene-styrene is a common thermoplastic polymer. It is characterized by excellent mechanical properties, high impact resistance, and temperature resistance. The natural material has an opaque ivory color and can be easily colored with pigments or dyes. ABS-M34 Everfil™ enables printing of strong and durable parts without the need for specialized 3D printers. It is recommended to avoid exposing the model to drafts during printing. The filament is characterized by low hygroscopicity, resistance to UV radiation, high impact strength, and thermal and mechanical resistance. It is suitable for recycling.

TYPICAL APPLICATIONS

- Household appliances: ABS is found in appliances like vacuum cleaners, kitchen appliances, and electronic housings due to its durability, heat resistance, and aesthetic appeal.
- Toys: ABS is a popular material for manufacturing toys and consumer goods due to its toughness, impact resistance, and ability to be molded into intricate shapes. LEGO bricks, for example, are made from ABS.
- Luggage and cases: ABS is commonly used in the manufacturing of luggage, suitcases, and protective cases due to its lightweight properties, impact resistance, and ability to withstand rough handling.
- Used in applications where electrical insulation is required, such as electronic enclosures or electrical components.

TECHNICAL PARAMETERS

PRODUCT PARAMETERS

Diameter (mm)	1,75; 2,85
Diameter tolerance (mm)	+/-0,02
Ovality tolerance (mm)	+/-0,015

PHYSICAL PARAMETERS

PARAMETR	NOMINAL VALUE	UNIT	TEST METHOD
PHYSICAL:			
Density	1,05	g/cm <sup>2</sup>	ISO -1183
Mould shrinkage 3,2 mm, flow	0,5-0,7	%	
Moisture absorption 23C/50%RH	0,15	%	ISO 62

MECHANICAL PROPERTIES

Tensile modulus, 5 mm/min	2280	MPA	ISO 527
Flexural modules, 2 mm/min	2300	MPA	ISO 178
Ball indentation hardness H358/30	95	MPA	ISO 2039-1

IMPACT

Isolt impact, notched 23 °C	633	J/m	ASTM D256
Isolt impact, notched -30 °C	30	J/m	ASTM D256
Charpy impact, notched 23 °C	23-37	kJ/m <sup>2</sup>	ISO 179/2C

#### THERMAL PROPERTIES

Thermal conductivity	0,2	W/m°C	ISO 8302
Vicat softening temperature, rate B/50	97	°C	ISO 306

#### RECOMENDEET PRINTING PARAMETRS

Nozzle temperature	230-250	°C
Bed temperature	90-110	°C
Cooling	not recommended	
Heated chamber	required	

*The above data is illustrative, as it depends on the type of 3D printing equipment owned, the geometry of the specific print, and environmental conditions.*

#### PACKAGING

The filament is produced on spools weighing 1.0 kg, 2.3 kg, and 5.0 kg. The spool is vacuum-packed in a bag made of high barrier moisture barrier foil and secured with a cardboard box. An additional advantage is the possibility of multiple openings of the 1.0 kg spool bag.

#### Weight netto/brutto

1,0 kg spool	1,00 /1,42
2,3 kg spool	2,30/ 3,30
5,0 kg spool	5,00 / 5,90

#### Dimensions of the spool (mm)

	Ø external/ height/ hole
1,0 kg spool	200/68/52
2,3 kg spool	300/100/52
5,0 kg spool	350/100/52

#### STORAGE

The filament must be stored in a sealed package in a cold and dry place.

#### MANUFACTURER

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