

Description

The *Premium 3D Printer Filament—HIPS* is made of dissolvable high impact polystyrene (HIPS) with a tight diameter tolerance.

Application & Usages

The HIPS filament is used as support material for 3D printers with dual heads. HIPS supports are easily soluble in d-Limonene, freeing the intricate ABS or PLA printed designs.

Benefits and Features

- **1.75 mm and 3.00 mm diameters**
- **Low diameter variance**

3D-Filament Processing Parameters

<i>Processing Parameters</i>	<i>Temperature</i> ^{a)}
Working Temperature	235 °C [455 °F]
Bed Temperature	115 °C [239 °F]

a) Values may vary depending on the printer type and environmental conditions. Adjust print temperatures by 5 °C until ideal flow and bed adhesion is obtained.

3D-Filament Properties

<i>Quality Control</i>	<i>Method</i>	<i>Value</i>
Specific Gravity	ISO 1183 @23 °C	1.05 g/cm ³

<i>Physical Properties</i>	<i>Method</i>	<i>Value</i>
Ball Indentation Hardness	ISO 2039-1	90 N/mm ² [13 000 lb/in ²]
Tensile Strength	ISO 527	27 N/mm ² [3 900 lb/in ²]
% Elongation	"	64%
Flexural Strength	ISO 178	40 N/mm ² [5 800 lb/in ²]
Flexural Modulus	"	1 600 N/mm ² [230 000 lb/in ²]
Izod Impact Strength	ISO 180/1A, notched	7 kJ/m ²
Charpy Impact Strength	ISO 179, notched	8 kJ/m ²
UL Flammability Rating		UL-94 HB

<i>Thermal Properties</i>	<i>Method</i>	<i>Value</i>
Melt Flow Index	ISO 1133 @200 °C, 5 kg load	5.5 mL per 10 min
Vicat Softening Temperature	ISO 306 @50 °C/h, 1 kg load	100 °C [212 °F]
Heat Distortion Temperature	ISO 75 @1.8 N/mm ² Unannealed	78 °C [172 °F]
	ISO 75 @1.8 N/mm ² Annealed	94 °C [201 °F]

Storage and Shelf Life

Store between 18 to 27 °C [65–80 °F] and protect from direct heat or sunlight. Keep sealed in an air tight container, away from humidity.

<i>Shelf Life</i>	<i>Value</i>
Unopened package	1 y from date of purchase
Opened package	Variable depending on storage conditions

Health and Safety

Please see the *Premium 3D Printer Filament-HIPS Safety Data Sheet* (SDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: This product doesn't have any known environmental toxicity.



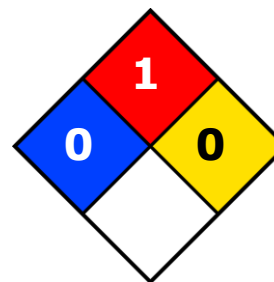
This product meets the European Directive
2011/65/EU Annex II (ROHS);
recasting 2002/95/EC.

Health and Safety: This product is not considered to be hazardous for human health under normal use. It is widely used in the packing and food industry.

HMIS® RATING

HEALTH:	0
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Packaging and Supporting Products

Available Colors



White

Available Sizes

<i>Diameter</i>	<i>Filament Length</i> 0.5 kg spool
1.75 mm 3.00 mm	410 m 140 m

<i>Spool Weight</i>	<i>Dimensions</i>		
	Inner diameter	Outer diameter	Width
0.50 kg	32 mm	160 mm	57 mm

<i>Diameter</i>	<i>Spool Weight</i> kg	<i>Net Volume</i>		<i>Net Weight</i>	
		L	qt	kg	lb
1.75 mm or 3.00 mm	0.50	0.476	0.503	0.50	1.1

Note: Some colors are not available in all sizes. Use the 3D filament Part Selection Tool for HIPS on the MG Chemical web site or [click here](#).

Supporting Products

- 3D Printing Masking Tape, Cat. No. MAS100-15, MAS200-15
- 3D Printing Polyimide Tape, Cat. No. POL100, POL200
- Acetone, Cat. No. 434-1L, 434-4L
- d-Limonene, Pure Grade: Cat. No. 433-1L, 433-4L

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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Warranty

M.G. Chemicals Ltd. warrants this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

Disclaimer

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