

Premium 3D Printer Filament

Description

HIPS (High Impact Polystyrene) is mostly used with a dual extruder when printing ABS. HIPS is used to make temporary support structures so that objects with overhanging areas can be created. After the print is complete, the HIPS can be dissolved in 433C d-Limonene without affecting the ABS object.

MG Chemicals premium 3D printing filaments are manufactured under strict quality control to ensure consistency. Our spools have a large hub to ensure uniform winding, and cut-outs on the sides so the user can easily see how much filament is left.

Features and Benefits

- *Diameter: 1.75 or 2.85 mm; Weight: 1 kg/spool*
- *Dimensional accuracy: ± 0.03 mm*
- *Vacuum-sealed with desiccant in resealable bags*
- *Recommended print temperature: 230 to 240 °C (446 to 464 °F)*
- *Recommended bed temperature: 80 to 115 °C (176 to 239 °F)*
- *Spool diameter: 7¾"; Spool width: 2½"; Hub diameter: 3½"; Hub hole diameter: 2⅛"*

Usage Parameters

Properties	Value
Storage temperature	18–27 °C [65–80 °F] ^{a)}
Shelf life, unopened package	1 y from date of purchase
Shelf life, opened package	Variable depending on storage conditions

a) Keep sealed in an air tight container, away from humidity.

Temperature Ranges

Properties	Value
Print temperature	230–240 °C [446–464 °F]
Bed temperature	80–115 °C [176–239 °F]

NOTE: Values may vary depending on the printer type, environmental conditions, and color of filament. Adjust print temperatures by 5 °C until ideal flow and bed adhesion is obtained.

Properties

Physical Properties	Method	Value
Density	ISO 1183	1.05 g/cm ³
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	ISO 527	64%
Flexural strength	ISO 178	40 N/mm ² [5 800 lb/in ²]
Flexural modulus	ISO 178	1 600 N/mm ² [230 000 lb/in ²]
Izod impact strength, notched	ISO 180/1A	7 kJ/m ²
Charpy impact strength, notched	ISO 179	8 kJ/m ²
UL flammability rating	—	UL-94 HB
Thermal Properties	Method	Value
Melt flow index @200 °C, 5 kg load	ISO 1133	5.5 mL per 10 min
Vicat softening temperature @50 °C/h, 1 kg load	ISO 306	100 °C [212 °F]
Heat distortion temperature @1.8 N/mm ² , annealed @1.8 N/mm ² , unannealed	ISO 75	78 °C [172 °F] 94 °C [201 °F]

Storage

Store between 18 to 27 °C [65 to 80 °F] in a dry area, away from sunlight. Keep sealed in an air tight container, away from humidity.

Health, Safety, and Environmental Awareness

Please see the HIPS Safety Data Sheet (SDS) for further details on transportation, storage, handling, safety guidelines, and regulatory compliance.

Packaging and Supporting Products

Available Colors



White
HIP17WH1
HIP30WH1

Dimensions for 1.0 kg Spool

Filament Diameter	Filament Length
1.75 mm	395 m
2.85 mm	149 m

NOTE: Dimensions listed above are approximations.

Net Weight	Net Volume	Packaging Weight
1.0 kg [2.2 lb]	952 mL [1.00 qt]	1.35 kg [2.98 lb]

Supporting Products

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

Technical Support

Please contact us regarding any questions, suggestions for improvements, or problems with this product. Application notes, instructions and FAQs are located at www.mgchemicals.com.

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