

HIPS-X

MATERIAL PROPERTIES

Density	1.05 g/cm ³	ISO 1183
Melt Flow Rate, (200°C/5.0kg)	12 g/10min	ISO 1133

Mechanical Properties

Tensile Stress at Yield	16 MPa	ISO 527-2/5
Tensile Stress at Break	16 MPa	ISO 527-2/5
Tensile Strain at Yield	1.5%	ISO 527-2/5
Tensile Strain at Break	50,00%	ISO 527-2/5
Flexural Modulus	2000 MPa	ISO 178
Flexural Strength	50 MPa	ISO 178
Charpy Notched Impact Strength	7kJ/m ²	ISO 179/2
Notched Izod Impact	90J/m	D 256
Rockwell Hardness (R-Scale)	55	ISO 2039-2

Thermal Properties

Vicat Softening Temperature	87°C	ISO 306/B50
Heat Deflection Temperature	88°C	ISO 75-2/B

Flammability

Flame Rating (0.0630 in (1.60mm))	HB	UL 94
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GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	230-245°C
Bed temperature	80-100°C
Active cooling fan	0 - 20%
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	40-100 mm/s
Closed chamber	recommended for larger prints
Dry box	not necessary
Ruby or hardened nozzle	not necessary

* settings are based on a 0.4 mm nozzle.

** depending on the geometrical complexity

Disclaimer

The product- and technical data provided in this datasheet is correct to the best of Spectrum Group Sp. z o.o. knowledge and are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary according to printing conditions, model complexity, environmental conditions, etc. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information. Typical values are indicative only and are not to be construed as being binding specifications. Spectrum Group Sp. z o.o. shall not be made liable for any damage, injury or loss induced from the use of Spectrum Group Sp. z o.o. materials in any particular application.

DESCRIPTION

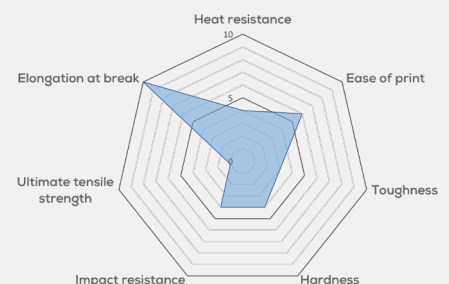
Spectrum HIPS-X is a support material designed for additive manufacturing for FDM/FFF technology. It is usually used as support for components manufactured with ABS, where HIPS-X supports are dissolved in the citric acid solution (D-Limonene) upon completion of the manufacturing process. Further, you can use Spectrum HIPS-X as a base material for manufacturing of components which require a reduced processing shrinkage as compared to ABS.

FEAUTURES

- lower shrinkage rate than classic ABS
- possibility of mechanical treatment (drilling, turning, milling or grinding)
- high impact resistance
- energy absorption and dissipation capabilities
- light
- fully soluble in D-Limonene
- matt surface

STORAGE AND SHELF LIFE

Filament should be stored in a dry room at room temperature. Recommended storage temperature is ca. 18-25°C (64.4 -77.0°F). Keep out of moisture, sunlight and direct heat. When stored properly, product has a shelf life of 24 months.



SUPPORT

If you have any questions or experience any issues, please do not hesitate to contact us at support@spectrumfilaments.com