

Product Description

The raw material for WillowFlex FX1504 is a unique elastomeric bioplastic with a diverse range of potential applications. The bioplastic is verified to meet U.S. (ASTM D6400) and E.U. (EN 13432) standards for compostability.

Applications

This material is suitable for fused deposition modeling (FDM) 3D printing both 1.75mm and 2.85mm diameter systems and does not require a heated bed or abnormal processing.

Processing Recommendations:

Drying: Resin can be dried to increase performance.

Drying Conditions: Out of a sealed box – 32° - 38°C (90° to 100° F) for 2 to 3 hours
Open Box – 38° - 50°C (100° to 120° F) for 4 to 5 hours

Suggested Printing Conditions:

Temperature °C	175°- 185°	Printing Speed	50-80mm/s
Temperature °F	345°- 329°		

Additional recommendations and Bowden Extrusion Settings are available here:

<https://www.willow-flex.com/printing-guide/>

Custom Formulations and Colors:

Specific formulas or colors for WillowFlex FX1504 can be made based on customer requests at high volumes. For further information, please contact orders@willow-flex.com. WillowFlex is also available in larger spool sizes up to 10 kgs.

Physical Properties	Test Method	Value	Unit
Specific Gravity	ASTM D792	1.23	g/cm ³
Izod Impact	ASTM D256	6.06	ft lb/in
Hardness	ASTM D2240	83	shore A
Tensile Strength	ASTM D638	1,873	psi
Tensile Modulus	ASTM D638	16,097	psi
Flex Strength	ASTM D790	762	psi
Flex Modulus	ASTM D790	16,097	psi
Melt Index (190°C & 2160g)	ASTM D1238	41.9	g/10min
Shrinkage (190°C & 2160g)	ASTM D1238	.0095	In/in

The information and recommendations in this sheet are based on our experience and analysis using standard procedures, and are believed to be accurate and reliable. However, they serve merely as typical guides, and are presented in good faith for the benefit of our customers. No guarantee, expressed or implied, is made regarding accuracy of the analysis, patent infringement, liabilities, or risks involved from the application of our products.