


Code	PRO_TDS_27	PRO <b>TECHNICAL DATA SHEET</b> TDS	
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## **SECTION 1: PRODUCT DESCRIPTION**

FC 50110 is made with Earth Renewable Technologies bio-based microfiber-additive package developed for 3D printing monofilament.


## **SECTION 2: PHYSICAL PROPERTIES & GUIDELINES FOR USE**

FC 50110 is supplied as off-white pellets. Temperatures during transportation and storage may not exceed 50°C. Storage time of unopened bags may not surpass 24 months at room temperature. Drying prior to processing is essential. A moisture content less degradation. The property values listed below should be viewed as guidelines only and may vary based on processing conditions. No warranties of any kind, either expressed or implied are made regarding products described or regarding designs, data or information set forth. Process temperatures must not exceed 230°C. In order to achieve high Heat Deflection Temperatures, hot molding or annealing of the part is required.

Drying: dry the material for 4 – 6 hours at 80°C.

	Settings, °F*	Settings, °C*
<b>Feed Throat</b>	70	21
<b>Feed Section</b>	260-300	130-150
<b>Zone 1</b>	375-395	191-200
<b>Zone 2</b>	375-395	191-200
<b>Zone 3</b>	375-395	191-200
<b>Zone 4</b>	375-395	191-200
<b>Hot Runner</b>	395-410	200-210
<b>Nozzle</b>	395-410	200-210
<b>Hot Mold Set up</b>	212-230	100-110

\*These settings are intended as a starting point. Optimization may be required

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Physical Properties	Test Method	Value
Melt Flow Rate (190°C, 2.16 kg)	ASTM D1238:2013	9 - 11 g/10 min

Mechanical Properties	Test Method	Value
Tensile Strength (MPa)	ASTM D638	52
Elongation at Break (%)	ASTM D638	66
Notched Izod Impact Strength (J/m)	ASTM D790	45
HDT (°C)	ASTM D256	55

\*Data properties measured on injection molded bars.

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