


Code	PRO_TDS_26	PRO TECHNICAL DATA SHEET TDS	
Rev.:	1		
Page:	1		
Date:	05/09/22		

SECTION 1: PRODUCT DESCRIPTION

FC 50020 is a product made with compound of crystallized PLA that presents performance and versatility, being a compostable biopolymer capable of replacing materials of fossil origin in a wide range of applications. Product suitable for production of 3D filament.


SECTION 2: PHYSICAL PROPERTIES & GUIDELINES FOR USE

FC 50020 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 than 100 ppm is recommended to prevent viscosity 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. To achieve high Heat Deflection Temperatures, hot molding or annealing of the part is required.

Drying: dry the material for 4 – 6 hours at 100°C.

	Setting, °F*	Setting, °C*
Feed Throat	68-104	20-40
Feed Section	356-375	180-190
Zone 1	375-410	190-210
Zone 2	375-410	190-210
Zone 3	375-410	190-210
Zone 4	375-410	190-210
Hot Runner	395-410	200-210
Nozzle	395-410	200-210
Hot Mold Set up	212-230	100-110

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

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Page:	2		
Date:	05/09/22		

Physical Properties	Test Method	Value
Melt Flow Rate (190°C, 2.16 kg)	ASTM D1238:20	2 – 5 g/10 min
Density	ASTM D792:20	1.25 g/cm ³
Appearance	-	Off-white

Mechanical Properties*	Test Method	Value
Tensile Strength	ASTM D638:22	> 60 MPa
Elongation at break	ASTM D638:22	< 16%
Notched Izod Impact Strength	ASTM D256:10	< 60 J/m
Heat Deflection Temperature (before crystallization)	ASTM D648:18	50 – 55 °C

*Data obtained from 30 °C injection molded standard test bars (Type I).

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