


Code	PRO_TDS_43	PRO TECHNICAL DATA SHEET TDS	
Rev.:	1		
Page:	1		
Date:	07/05/23		

SECTION 1: PRODUCT DESCRIPTION

FC 50010 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 coating application and production of 3D filament.


SECTION 2: PHYSICAL PROPERTIES & GUIDELINES FOR USE

FC 50010 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	70	21
Feed Section	311-347	155-175
Zone 1	356-428	180-220
Zone 2	356-428	180-220
Zone 3	356-428	180-220
Zone 4	356-428	180-220
Hot Runner	374-428	190-220
Nozzle	374-428	190-220
Hot Mold Set up	194-212	90-100

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

Code	PRO_TDS_43	PRO TECHNICAL DATA SHEET TDS	
Rev.:	1		
Page:	2		
Date:	07/05/23		

Physical Properties	Test Method	Value
Melt Flow Rate (190°C, 2.16 kg)	ASTM D1238:20	8 – 13 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	< 15%
Notched Izod Impact Strength	ASTM D256:10	< 70 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).

No freedom of infringement of any patent owned or pending by Earth Renewable Technologies LLC or others is to be inferred.