


Code	PRO_TDS_03	PRO TECHNICAL DATA SHEET TDS	
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SECTION 1: PRODUCT DESCRIPTION

FC 10175 is made with Earth Renewable Technologies bio-based microfiber-additive package developed for manufacturing extrusion and thermoforming applications.


SECTION 2: PHYSICAL PROPERTIES & GUIDELINES FOR USE

FC 10175 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*
Feed Throat	70	21
Feed Section	260-300	130-150
Zone 1	375-395	191-200
Zone 2	375-395	191-200
Zone 3	375-395	191-200
Zone 4	375-395	191-200
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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Physical Properties*	Test Method	Value
Melt Flow Rate (190°C, 2.16 kg)	ASTM D1238:2013	1 - 3 g/10 min
		Axial: 0.4%
Molding Shrinkage	ASTM D955	Lateral: 1.0 %
		Axial: 0.99%*
		Lateral: 1.4%*

Mechanical Properties*	Test Method	Value
Tensile Strength	ASTM D638:2014	44 MPa
		46 MPa*
Elongation at Break	ASTM D638:2014	130%
		75%*
Flexural Modulus	ASTM D790:2017	2973 MPa
		4254 MPa*
Notched Izod Impact Strength	ASTM D256:10(2018)	43 J/m
		85 J/m*
HDT (before crystallization)	ISO 75-1/-2	56°C
HDT (after crystallization)	ISO 75-1/-2	132°C

*Data obtained from hot molded ASTM standard test bars. Results obtained at 100% add in.

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