SECTION 1: PRODUCT DESCRIPTION

FC 10130 is a product made with ERT's exclusive and revolutionary microfiber technology, Short Fiber Reinforced Polymer – SFRP®, drastically modifies the performance of the PLA composite, combining biodegradation with a solution that has good impact resistance and greater elongation. Product suitable for extrusion and blow molding processes.

SECTION 2: PHYSICAL PROPERTIES & GUIDELINES FOR USE

FC 10130 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. 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.

	Setting, ºF*	Setting, ºC*
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.

Physical Properties	Test Method	Value
Melt Flow Rate (190°C, 2.16 kg)	ASTM D1238:20	7 – 20 g/10 min
Density	ASTM D792:20	1.25 g/cm³
Appearance	-	Off-white
Shrinkage from Mold Dimensions*	ASTM D955:14	Parallel (24 h): 0,23±0,15%
		Perpendicular (24 h): 0,55±0,25%
		Parallel (48 h): 0,27±0,08%
		Perpendicular (48 h): 0,43±0,15%

* Injection mold at 40 °C.

Mechanical Properties*	Test Method	Value
Tensile Strength	ASTM D638:22	> 25 MPa
Elongation at break	ASTM D638:22	> 40%
Notched Izod Impact Strength	ASTM D256:10	> 30 J/m
Flexural Modulus	ASTM D790:17	2800 – 3500 MPa
Heat Deflection Temperature (before crystallization)	ASTM D648:18	50 – 55 °C
Heat Deflection Temperature (after crystallization)**	ASTM D648:18	62 – 65 °C

*Data obtained from 30 °C injection molded standard test bars (Type I);
**Data obtained from 90 °C injection molded standard test bars.

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