


Code	PRO_TDS_08	PRO TECHNICAL DATA SHEET TDS	
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SECTION 1: PRODUCT DESCRIPTION

FC 45140 is a PLA/PBAT/Starch blend made with Earth Renewable Technologies bio-based package developed for manufacturing blow film extrusion and coating products.

SECTION 2: PHYSICAL PROPERTIES & GUIDELINES


FC 45140 is supplied beige/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.

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

Blow film extrusion process

	Settings, °F*	Settings, °C*
Feed Throat	70	21
Feed Section	293-311	145-155
Zone 1	311-338	155-170
Zone 2	311-338	155-170
Zone 3	311-338	155-170
Zone 4	311-338	155-170
Die	329-347	165-175
Screw Speed	40 – 100 ppm	

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

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Coating process

	Settings, °F*	Settings, °C*
Feed Throat	70	21
Feed Section	350-375	177-191
Zone 1	375-395	191-200
Zone 2	375-395	191-200
Zone 3	375-395	191-200
Zone 4	375-395	191-200
Die	395-410	200-210
Screw Speed	40 – 100 ppm	

*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 D1238:2013	4.0 g/10 min
Density	ERT-SOP-0500	1.25g/cm ³
Appearance	-	Beige

Mechanical Properties*	Test Method	Value
Tensile Strength	ERT-SOP-0200	TD:>15MPa MD:>12MPa
Elongation at break	ERT-SOP-0200	TD:>250 % MD:>200 %
Melting Point	ERT-SOP-0100	165°C

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