

### Cast Film / Blown Film

#### Applications

- Flexible film applications
- Food service applications

**Description:** Star Resin's Biopolymer Film Resin PLA/PBAT is a compostable resin manufactured from partially bio-based materials using a reactive extrusion process. This resin is composed of materials that meet the ASTM 6400 compostability standards.

Property	Value	Unit	Test Method
Melt Index (290 °C, 2160 g)	5	g/10min	D 1238
Density	1.265	g/cm <sup>3</sup>	D 792
Tensile Strength at Yield TD/MD	1150/1800	psi	D 638
Tensile Strength at Break TD/MD	2600/3300	psi	D 638
Tensile Modulus TD/MD	15100/48600	psi	D 638
Elongation at Break TD/MD	510/190	%	D 638
Elmendorf Tear Strength TD/MD	2650/8460	Mn	D 1922

#### Processing Details

##### Start-up and shutdown

The machine should be clean before use. A purge compound is recommended to thoroughly remove contaminants prior to the use of this resin. A low to medium melt index (3 to 7) LDPE is recommended for purge and transition material. Do not leave molten resin in the machine for extended periods of time after processing. Carefully clean all unused material from hoppers and feed systems.

##### Drying

Drying before processing is required. A moisture content of less than 0.04% (400 ppm) is recommended to prevent viscosity degradation during processing. We recommend drying conditions of 4 hours not greater than 160 °F (80 °C) or to a dew point of -40 °F (-40 °C), with an airflow rate greater than 0.5 cfm/lb of resin.

This information, to our knowledge, is believed to be correct. The use of this product in its actual conditions are beyond our control and satisfactory results for this product is the customer's sole responsibility. User must make their own decisions regarding its suitability for their equipment and final products.

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The resin should not be exposed to atmospheric conditions after drying. Keep the package sealed until ready to use.

### Processing

While process conditions will vary depending on the machine and the die, the following conditions are recommended as a starting point for this resin.

Feed Throat Ambient Temperature  
Front Zone 280-310 °F (140-155 °C)  
Middle Zone 300-320 °F (150-160 °C)  
End Zone 310-330 °F (155-165 °C)  
Adapters 310-330 °F (155-165 °C)  
Die 310-330 °F (155-165 °C)

### Regulatory Status and Certifications

This resin is certified as OK Compost by Vinçotte. This means that the resin is guaranteed as biodegradable in an industrial composting plant. This applies to all components and additives.

### Safety and Handling Considerations

#### Hazards and handling

This resin has a very low degree of toxicity and, under normal conditions of use, should pose no unusual hazards from incidental ingestion or eye and skin contact. Standard industrial practices should be followed when handling, storing, using, or disposing of these resins, and good housekeeping and control of dust is recommended for safe handling of the product.

Clean, body-covering clothing should be worn when handling this resin. Use insulated thermal gloves when exposure to the melt is possible. Workers should be protected from the possibility of contact with molten resin during processing.

Handling and processing of resins can result in the generation of vapors and dusts that may cause irritation to eyes and the upper respiratory tract. Good general ventilation of the area around processing equipment is recommended. If exposure to vapor from the melt causes eye or respiratory discomfort, use local exhaust methods or a full-face respirator. If dust is present, use an approved dust respirator. The use of safety glasses and appropriate personal protective equipment is recommended.

Proper grounding of materials handling equipment- vacuum loading hoses and wands, hoppers, and other equipment is recommended to prevent the build-up of static electricity.