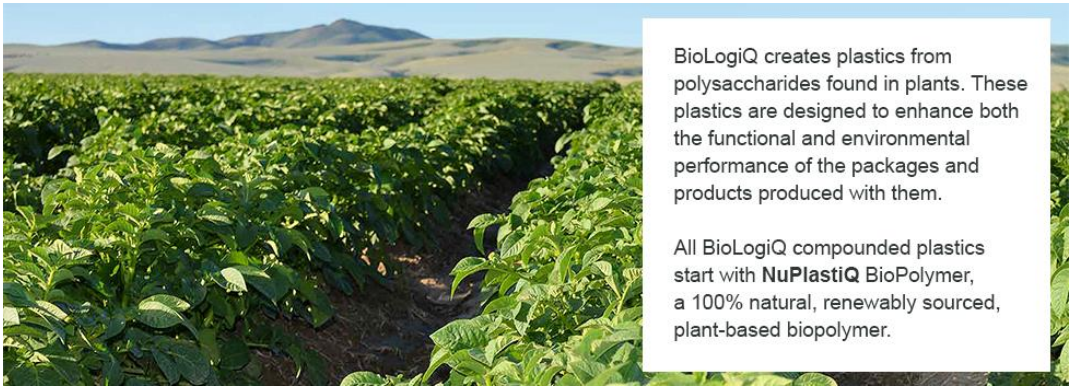
Technical Data Sheet (TDS)

Product: BioBlend® BC 27200



Description

- One of the BioBlend® BC Biodegradable/Compostable Resins designed for films and bags.
- BioBlend® BC 27200 is supplied in pellet form, fully compounded.

Applications

- BioBlend® BC 27200 is intended for films and bags.
- Used for products that require biodegradation and are intended for compost environments.

Properties

PHYSICAL	TEST METHOD	NOMINAL VALUE	UNITS
Density:	Calculated	1.45	g/cm^3
THERMAL			
Melt Flow Index	ASTM D1238	1.3	g/10 min (190 °C/2.16 kg)
ADDITIONAL INFORMATION			
Water Content: (1)	ASTM D6980	≤ 0.8	%
FILM PROPERTIES (2)			
Tensile Strength			
MD	ASTM D882	20	MPa
TD	ASTM D882	18	MPa
Elongation at Break			
MD	ASTM D882	200	%
TD	ASTM D882	450	%
Elmendorf Tear			
MD	ASTM D1922	130	g
TD	ASTM D1922	180	g
Dart Drop Test			
	ASTM D1709	230	g

Notes:

1) Moisture content was measured with an infrared moisture analyzer at 110°C for 10 minutes.
2) The reported film properties are for a monolayer blown film from 100% BC 27200. The thickness was 1.0 mil, and the blow-up ratio was 2.5:1.
3) These values are typical properties only and should not be used for specification purposes. End users should confirm results with their own tests.

Processing Considerations

- BC 27200 can be run on existing film blowing equipment.
    - Films made with compostable materials are more sensitive to processing conditions such as temperature profile, residence time, die gap, and blow-up ratio. See the NuPlastiQ Film Processing Guide for additional information.
    - A typical recommended temperature profile will be in the 130°C – 165°C range.
    - Melt temperatures above 175°C may cause material degradation, lensing, and fish-eyes in the film.
- If extruder operation must be stopped temporarily, it is recommended to purge the material in the barrel before resuming film processing or material degradation will occur.

Packaging

- BC 27200 can be shipped in the following formats:
    - 25kg moisture barrier bags.
    - 1000kg gaylord boxes with a moisture barrier bag.

Storage

- Material should be stored in a dry location away from heat and direct sunlight. Material must remain sealed in moisture barrier bag. Material has a shelf life of 6 months if stored under normal warehouse conditions (typical max temperature of 80°F/26°C.)

Drying

- BioLogiQ BioBlends are dried after production and shipped in sealed moisture-proof bags that are ready to use as supplied. They should be stored indoors in the sealed container away from heat until used.
- If pellets are exposed to a humid environment, they will absorb moisture from the air. If needed, dry pellets by introducing warm dry air at no more than 60°C for 1-4 hours.
- The estimated moisture content of a BioLogiQ BioBlend can be measured with an infrared moisture analyzer at 110°C for 10 minutes. The result of the measurement will not perfectly equal the moisture content, due to possible partial evaporation of plasticizer. The result from this test should be <0.8% moisture prior to processing.