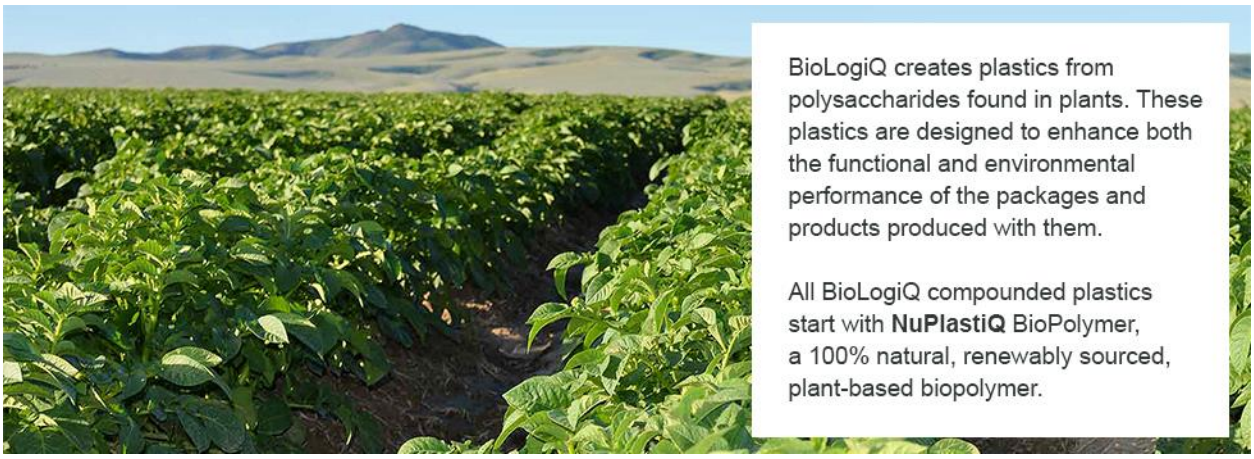
Technical Data Sheet (TDS)

Product: BioBlend® CB 25610



Description

- One of the BioBlend® CB family of high durability BioPolymers designed for injection molding applications.
- BioBlend® CB 25610 is a custom masterbatch that contains 10% NuPlastiQ GP BioPolymer compounded with a polypropylene random copolymer.
- Made from 10% annually renewable agricultural resources.
- Supplied in pellet form.

Applications

- BioBlend® CB 25610 is intended for injection molded applications.

Properties

PHYSICAL	TEST METHOD	NOMINAL VALUE	UNITS
Density:	ASTM D792	0.95	g/cm^3
THERMAL			
Melt Flow Index	ASTM D1238	8.3	g/10 min (190 °C/2.16 kg)
ADDITIONAL INFORMATION			
Moisture Content:(1)	ASTM D6980	≤ 0.5	%
MECHANICAL PROPERTIES (2)			
Tensile Properties			
Secant Modulus @ 1%	ASTM D638	561	MPa
Tensile Strength at Break	ASTM D638	15.9	MPa
Elongation at Break	ASTM D638	476	%
Flexural Properties			
Flexural Modulus	ASTM D790	853	MPa
Ultimate Flexural Strength	ASTM D790	34.7	MPa
Notched Impact Strength			
Izod - Notched	ASTM D256	29.5	J/m

Table Notes:

1) Moisture content was measured with an infrared moisture analyzer at 110°C for 10 minutes.
2) Mechanical properties were measured on injection molded parts made directly from CB 25610.
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

- CB 25610 can be run on existing process equipment with a few adjustments.

- Injection molded applications with CB 25610 are slightly more sensitive to processing conditions such as temperature profile and cycle time.
  - A typical recommended temperature profile will be in the 180°C – 210°C range.
  - Depending on equipment, process conditions, and residence time, as temperatures increase in this range the glycerin plasticizer may experience some volatilization. This may cause a slight odor and/or smoke and is expected under normal processing conditions. Always use proper ventilation. See the BioBlend® CB 25610 SDS for details.
- Some equipment (shorter residence time) may allow for higher processing temperatures (210°C - 225°C).
- If the melt temperature is too hot for the specific blend, some scorching and dark coloring may occur. Lower the extrusion temperature and continue processing until the color lightens to an acceptable level.

Storage and 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 80°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 <0.5% moisture prior to processing.