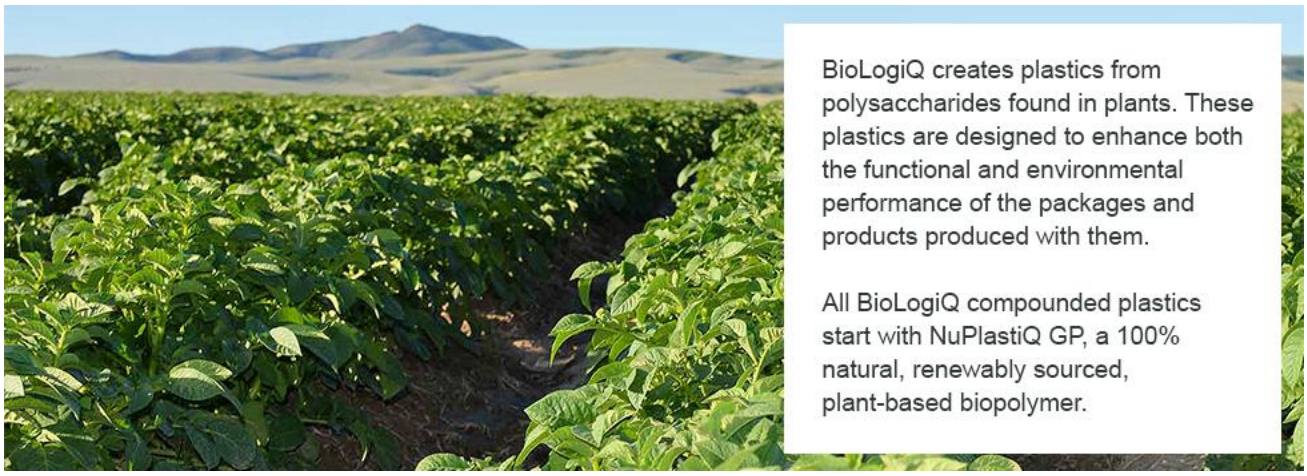
Technical Data Sheet (TDS)

Product: BioBlend® XD 26150



Description

- A member of the BioBlend® XD family of high durability BioPolymers for injection molding and extrusion.
- This TDS covers the following BioBlend® XD BioPolymers: XD 26150 and XD 26151.
- BioBlend® XD 26150 is a masterbatch that contains 50% NuPlastiQ® CG BioPolymer compounded with High Impact Polystyrene.
- Made from 50% annually renewable agricultural resources.
- Supplied in pellet form.

Applications

- BioBlend® XD 26150 is intended for foaming, sheet extrusion (including thermoformed applications), and injection molding.

Properties

PHYSICAL	TEST METHOD	NOMINAL VALUE	UNITS
Density:	ASTM D792	1.2	g/cm^3
THERMAL			
Melt Flow Index	ASTM D1238	1.8	g/10 min (190 °C/5 kg)
ADDITIONAL INFORMATION			
Moisture Content:(1)	ASTM D6980	≤ 0.5	%
MECHANICAL PROPERTIES (2)			
Tensile Properties			
Secant Modulus @ 1%	ASTM D638	810	MPa
Tensile Strength at Break	ASTM D638	25	MPa
Elongation at Break	ASTM D638	5	%
Flexural Properties			
Flexural Modulus	ASTM D790	1360	MPa
Ultimate Flexural Strength	ASTM D790	40	MPa
Notched Impact Strength			
Izod - Notched	ASTM D256	12	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 the 50% NuPlastiQ / 50% polystyrene masterbatch.
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

- XD 26150 is designed to be diluted with additional polystyrene to achieve a final NuPlastiQ CG concentration between 10% and 40%.
- XD 26150 can be run on existing process equipment with a few adjustments.
- Injection molded applications with XD 26150 are 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® XD 26150 SDS for details.

- Some equipment (shorter residence time, higher output) may allow for higher processing temperatures (210°C - 220°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.