Technical Data Sheet (TDS)

Product: BioBlend® XD 22620

BioLogiQ creates plastics from polysaccharides found in plants. These plastics are designed to enhance both the functional and environmental performance of the packages and products produced with them.

Biolog

All BioLogiQ compounded plastics start with **NuPlastiQ** BioPolymer, a 100% natural, renewably sourced, plant-based biopolymer.

Description

- A member of the **BioBlend® XD Family** of BioPolymers for blow molding.
- BioBlend[®] XD 22620 contains 20% NuPlastiQ compounded with HDPE.
- Made from 20% annually renewable agricultural resources.
- BioBlend[®] XD 22620 is supplied in pellet form.

Applications

• BioBlend[®] XD 22620 is designed for blow molding applications that require stress crack resistance, rigidity, and high impact strength.

Properties

PHYSICAL	TEST METHOD	NOMINAL VALUE	UNITS
Density:	Calculated	~1.04	g/cm ³
THERMAL			
Melt Flow Index	ASTM D1238	1.0	g/10 min (190°C/5 kg)
ADDITIONAL INFORMATION			
Water Content: ⁽¹⁾	ASTM D6980	0.35 – 0.65	%
MECHANICAL PROPERTIES (2)			
Tensile Properties	ASTM D638		
Secant Modulus		630	MPa
Break Strength		12.5	MPa
Flexural Properties	ASTM D790		
Flexural Modulus		660	MPa
Ultimate Strength		26.0	MPa

Note:

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 XD 22620 BioBlend.

3) These values are typical properties only and should not be used for specification purposes. End users should confirm results with their own tests.

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BioLogiQ

Processing Considerations

- BioBlend XD 22620 can be run on existing processing equipment with a few adjustments.
- At temperatures above 200°C degradation of the NuPlastiQ BioPolymer may occur. A typical temperature profile in the 190-195C range is recommended.
- Under normal conditions, processing BioBlends may cause a slight odor and/or smoke. Always use proper ventilation. See the BioBlend® XD 22620 SDS for details.
- If extruder operation must be stopped temporarily, it is recommended to purge the material in the barrel before resuming processing or material degradation will occur.

Packaging

- XD 22620 can be shipped in the following formats:
 - 25kg moisture barrier bags.
 - 1000kg gaylord boxes with a moisture barrier bag.

Storage

• XD 22620 should be stored in a dry location away from heat and direct sunlight. Material must remain sealed in moisture barrier bag until used. Material should be 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.
- It is recommended to re-seal moisture barrier bags right after use. 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 <0.65% moisture prior to processing.