PolyEarthylene®

TECHNICAL DATA SHEET

Verde BIORESINS

PRODUCT: PEL IM 277

Renewable Content	
Biobased Content (%) (ASTM D6866)	56

PRODUCT DESCRIPTION: This grade of PolyEarthylene® is biodegradable, containing more than 50% biobased content and is intended for injection molding applications requiring high strength and durability. This material is FDA Title-21 Food Contact Compliant. All data presented has been analyzed in accordance with ASTM standards. The biodegradation timeline for this material is approximately 3-5 years.

CHARACTERISTIC	TEST METHOD	VALUE	UNIT
MELT FLOW INDEX	ASTM D1238 Procedure A	9.5	g/10 min (190°C, 2.16Kg)
SPECIFIC GRAVITY	ASTM D792	1.02	g/cm^3
HARDNESS (SHORE D)	ASTM D2240	66	N/A
TENSILE STRENGTH (@YIELD)	ASTM D638	2,882	psi
TENSILE STRENGTH (@BREAK)	ASTM D638	287	psi
TENSILE MODULUS	ASTM D638	101,325	psi
TENSILE ELONGATION	ASTM D638	73	%
FLEXURAL MODULUS	ASTM D790	80,443	psi
FLEXURAL STRENGTH	ASTM D790	2,426	psi
IZOD IMPACT STRENGTH (NOTCH 1/8" SPECIMEN)	ASTM D256	0.533	ft-lb/in (73 °F)

Processing Conditions:

PolyEarthylene® resins can be processed with conventional injection molding equipment. The addition of this resin should be performed after a standard purging process. The melt temperature of the resin should be kept below 450 °F, if possible.

Manufacturing processes differ and the temperature ranges for injection molding presented in the table are only suggested by Verde Bioresins, Inc.®

Modifications to operational parameters may be required for some equipment. Any questions related to the material can be addressed to Verde Bioresins, Inc.s®

Description of Temperature Zone	Temperatures (Range Value)
Feed	100-200°F
Barrel	340-380°F
Die Head	340-360°F

Packaging and Storing:

This resin is packaged in a sealed, foil lined gaylord or bag. The product should be stored in a cool, dry, and isolated area away from moisture and other contaminants to achieve maximum stability and performance.

Notes:

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by the molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed. This data is not based on the minimum quantity of results required to report as qualifying specifications and may be subject to refinement. Data herein is typical and not to be construed as specifications.

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