

POLYEARTHYLENE TECHNICAL DATA SHEET



PRODUCT: PEL FZ 311

Renewable Content	
Biobased Content (%) (ASTM D6866)	>45%

PRODUCT DESCRIPTION: PEL-FZ-311 is an LLDPE film grade of PolyEarthylene with a minimum biobased content of 45%. It is specifically designed for film applications. All data presented has been analyzed in accordance with ASTM standards. This material is FDA Title-21 Food Contact Compliant. The biodegradation timeline for this material in film form is approximately 1-3 years.

CHARACTERISTIC	TEST METHOD	VALUE	UNIT
MELT FLOW INDEX	ASTM D1238	0.89	g/10 min (190°C, 2.16Kg)
SPECIFIC GRAVITY	ASTM D792	0.935	g/cm ³
HARDNESS (SHORE D)	ASTM D2240	71.5	N/A
MOLD SHRINKAGE LINEAR FLOW 1/8" SECTION LINEAR FLOW	D955	2.20	%
NOTCHED IZOD IMPACT	D256	5.91	Ft-lb/in
TENSILE STRENGTH (@YIELD)	D638	1642	psi
TENSILE STRENGTH (@BREAK)	D638	1435	psi
TENSILE MODULUS	D638	15389	psi
TENSILE ELONGATION	D638	703	%
FLEXURAL MODULUS	D790	12488	psi
FLEXURAL STRENGTH	D790	861	psi

Molding Conditions:

PolyEarthylene resins can be processed with conventional blown film extrusion equipment. The addition of this resin should be performed after a standard purging process. The melt temperature of the resin should be kept below 400°F if possible.

Every manufacturing process is different and the temperature ranges for extrusion 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.

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

Packing 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 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.