

**PolyEarthylene®**  
**TECHNICAL DATA SHEET**



**PRODUCT: PEL FZ 282**

**PRODUCT DESCRIPTION:** PEL-FZ-282 is a LLDPE film grade of PolyEarthylene® with a minimum biobased content of 63%. It is specially designed for film applications requiring enhanced clarity in comparison to PEL-FZ-196. 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.

Renewable Content	
Biobased Content (%) (ASTM D6866)	63

CHARACTERISTIC	TEST METHOD	VALUE	UNIT
MELT FLOW INDEX	ASTM D1238 Procedure A	1.61	g/10 min (190°C, 2.16Kg)
SPECIFIC GRAVITY	ASTM D792	0.937	g/cm³
HARDNESS (SHORE D)	ASTM D2240	54	N/A
TENSILE STRENGTH (@YIELD)	ASTM D638	1,528	psi
TENSILE STRENGTH (@BREAK)	ASTM D638	745	psi
TENSILE MODULUS	ASTM D638	13,828	psi
TENSILE ELONGATION	ASTM D638	780	%
FLEXURAL MODULUS	ASTM D790	11,832	psi
FLEXURAL STRENGTH	ASTM D790	773	psi
IZOD IMPACT STRENGTH (NOTCH 1/8" SPECIMEN)	ASTM D256	5.5	ft-lb/in (73 °F)
HAZE	ASTM D1003	29.3	% (1.75 mil)
LIGHT TRANSMISSION	ASTM D1003	90.9	% (1.75 mil)
TENSILE STRENGTH (MD)	ASTM D822	1,842	psi
ELONGATION (MD)	ASTM D822	12.6	%
TENSILE STRENGTH (TD)	ASTM D822	2,132	psi
ELONGATION (TD)	ASTM D822	67.9	%

**Processing 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 450 °F, if possible.

Manufacturing processes differ and the temperature ranges for blown film extrusion 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 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 is typical and not to be construed as specifications.