POLYEARTHYLENE

TECHNICAL DATA SHEET

PRODUCT: PEL FZ 196

Renewable Content	
Biobased Content (%) (ASTM D6866)	64

PRODUCT DESCRIPTION: This is a Bio-based, film grade of PolyEarthylene tailored specifically for film applications.
All data presented has been analyzed in accordance with ASTM standards. This material has been tested to be FDA Title-21 Food Contact Compliant, BPA-free, phthalate free, and PFAS free. The biodegradation timeline for this material in film form is approximately 1-3 years.

CHARACTERISTIC	TEST METHOD	VALUE	UNIT
MELT FLOW INDEX	ASTM D1238 Procedure A	1.90	g/10 min (190°C, 2.16Kg)
SPECIFIC GRAVITY	ASTM D792	0.975	g/cm^3
HARDNESS (SHORE D)	ASTM D2240	68	N/A
TENSILE STRENGTH (@YIELD)	ASTM D638	1,375	psi
TENSILE STRENGTH (@BREAK)	ASTM D638	990	psi
TENSILE MODULUS	ASTM D638	13,500	psi
TENSILE ELONGATION	ASTM D638	750	%
FLEXURAL MODULUS	ASTM D790	15,000	psi
FLEXURAL STRENGTH	ASTM D790	935	psi
IZOD IMPACT STRENGTH (NOTCH 1/8" SPECIMEN)	ASTM D256	5.25	ft-lb/in (73 °F)
HAZE	ASTM D1003	58	% (2 mil)
LIGHT TRANSMISSION	ASTM D1003	89	% (2 mil)
TEAR RESISTANCE (TD)	ASTM D2582	409	N
TEAR RESISTANCE (MD)	ASTM D2582	389.1	N
WATER VAPOR TRANSMISSION RATE	ASTM E96	0.287	$(g/h\text{-}m^2)$ (2 mil)

Processing Conditions:

PolyEarthylene resins can be processed with conventional 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 herein is typical and not to be construed as specifications.