

Technical Data Sheet

PEL FZ 196

Product Description

An LLDPE grade of PolyEarthylene® with a minimum biobased content of 64%. It is a film grade of PolyEarthylene® designed for general film applications.

Renewable Content

Minimum Biobased Content (%) (ASTM D6866)	64%
Est. Biodegradation Timeline (Years)	3-5

General

- Complies with U.S. FDA 21 CFR 177.1520 (c)3.1a
- No BPAs, phthalates, or PFAS intentionally added
- Recyclable
- Biodegrades in a landfill environment in 3-5 years under ASTM D5511

Properties	Value (English)	Value (SI)	Method
Melt Flow Index (190°C, 2.16 kg)	1.90 g/10min	1.90 g/10min	ASTM D1238 Procedure A
Specific Gravity	0.975	0.975	ASTM D792
Durometer Hardness (Shore D)	54	54	ASTM D2240
Tensile Strength @Yield	1,375 psi	9.48 MPa	ASTM D638
Tensile Strength @Break	990 psi	6.82 MPa	ASTM D638
Tensile Modulus	13,500 psi	93.1 MPa	ASTM D638
Tensile Elongation	750 %	750 %	ASTM D638
Flexural Modulus	15,000 psi	103.4 MPa	ASTM D790
Flexural Strength @Peak	935 psi	6.4 MPa	ASTM D790
1/8" Notch Izod Impact Strength (73 °F)	5.25 ft-lb/in	280 J/m	ASTM D256
Haze	58 % (2 mil)	58 % (2 mil)	ASTM D1003
Light Transmission	89 % (2 mil)	89 % (2 mil)	ASTM D1003
Tear Resistance (TD)	91.9 lbf	409 N	ASTM D2582
Tear Resistance (MD)	87.5 lbf	389.1 N	ASTM D2582
Water Vapor Transmission Rate	5.88 x 10 ⁻⁵ (lbs/hr-ft ²) (2 mil)	0.287 (g/h-m ²) (2 mil)	ASTM E96

Processing Conditions:

PolyEarthylene resins can be processed with conventional blown film equipment. The addition of this resin should be performed after a standard purging process. The melt temperature of the resin should be kept below 390°F, if possible.

Manufacturing processes differ and the temperature ranges for blown film 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.

Blown Film Processing Parameters:

Description of Temperature Zone	Temperatures (Range Value)
Feed	100-200°F
Barrel	340-390°F
Die Head	340-390°F

Disclaimer:

All data present has been analyzed in accordance with ASTM standards. 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.

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