

Technical Data Sheet

PEL FL 380

Product Description

An LDPE Film Grade of PolyEarthylene containing material with a minimum biobased content of 99%. An extrusion film grade designed for applications such as bubble wrap, protective packaging, inflatable cushioning, and flexible blow molded bottles.

Renewable Content

Minimum Biobased Content (%) (ASTM D6866)	99%
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)	2.64 g/10min	2.64 g/10min	ASTM D1238 Procedure A
Specific Gravity	0.931	0.931	ASTM D792
Durometer Hardness (Shore D)	54	54	ASTM D2240
Tensile Strength @Yield	1,638 psi	11.3 MPa	ASTM D638
Tensile Strength @Break	1,493 psi	10.3 MPa	ASTM D638
Tensile Modulus	29,297 psi	202 MPa	ASTM D638
Tensile Elongation	111 %	111 %	ASTM D638
Flexural Modulus	12,390 psi	85.4 MPa	ASTM D790
Flexural Strength @Peak	687 psi	4.7 MPa	ASTM D790
1/8" Notch Izod Impact Strength (73 °F)	4.02 ft-lb/in	215 J/m	ASTM D256

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 400°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.

Blown Film Processing Parameters:

Description of Temperature Zone	Temperatures (Range Value)
Feed	100-200°F
Barrel	340-400°F
Die Head	340-400°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.