ecoPLAS® BIO204

TECHNICAL DATA SHEET

from the earth, to the earth®, we are REearthable®

ecoPLAS® is a limestone-based biodegradable and industrially compostable alternative to polypropylene. Its calcium carbonate content permanently retains naturally mineralized CO_2 under normal processing and end-use conditions.

PRODUCT DESCRIPTION

ecoPLAS® is a biodegradable (ASTM D5511) and industrial compostable (ASTM D5338), limestone ($CaCO_3$) based material series formulated with food-contact-grade raw materials meeting applicable FDA GRAS and Food Contact Notification (FCN) requirements.

Our patented formula was designed to address sustainability objectives of lowering overall carbon footprint, minimizing the impact on CO_2 production while taking advantage of drop-in ready alternative materials requiring no manufacturing changes.

- Drop in ready; Compatible with existing manufacturing and processing equipment
- Off white pellets in their natural, un-dyed processed form, ±0.015” in size
- Pre drying of pellets is necessary for material performance (100 ppm/.001% or less / 60 ppm recommended). Dry at 40°C (104°F) (~6 hrs.) preferably with a desiccant drying system. Verify with a moisture analyzer for best results.

APPLICATIONS

Suitable for 3D print/Additive Manufacturing, Thermoform/Sheet and Injection Molding

ecoPLAS® is suitable for Additive Manufacturing/3D Print (large and small format), Sheet extrusion, Injection Molding, Thermoforming and other similar processing applications.

FORM / STORAGE

ecoPLAS® is supplied in pellet form in bulk containers and requires pre drying prior to processing. The material can be stored at ambient room temperature in a dry location for up to 24 months in a sealed container.

INTELLECTUAL PROPERTY

It is the responsibility of those to whom we supply our products to ensure that any proprietary rights, laws and legislation are observed. All ecoPLAS® uses and product obtained are subject to and protected by intellectual property rights. Purchase of ecoPLAS® does not entitle the buyer or any third to produce, offer or use ecoPLAS® or any blends thereof.

Typical Properties of ecoPLAS® by REearthable® Material

PROPERTY	VALUE	UNIT	METHOD
Mechanical			
Tensile Modulus	1.6	GPa	ASTM D638
Tensile Strength at Yield	23	MPa	ASTM D638
Tensile Strength at Break	18	MPa	ASTM D638
Tensile Elongation at Yield	3.7	%	ASTM D638
Tensile Elongation at Break	16	%	ASTM D638
Flexural Modulus	1.6	GPa	ASTM D790
Hardness	71	shore D	ASTM D2240
Notched Charpy Impact Strength	84	J/m	ASTM D6110
Notched Izod Impact Strength	77	J/m	ASTM D256
Physical			
Density	1.46	g/cc	ASTM D792
Melt Flow Index (165°C, 2.16kg)	2.75	g/10min	ASTM D1238
Thermal			
Glass Transition Temperature	59	°C	ASTM D3418
Melting Temperature	153.3	°C	ASTM D3418

NOTES / DISCLAIMER

The information supplied is based on our current knowledge as the values presented herein are typical laboratory values and may vary within ranges.

Given the many factors that may affect processing and applications, the data does not relieve processors of their responsibility to carry out their own validation. The applicability or suitability of our products cannot be guaranteed outside of this data. It does not necessarily indicate results a recipient may attain and does not imply any legally binding assurance for a particular purpose.

It is the responsibility of those to whom we supply our products to ensure any proprietary rights, laws and legislations are observed including the marketing use of any such claims.

FOR MORE INFORMATION, PLEASE CONTACT US:

+1 206.659.9997 | www.REearthable.com | LetsTalk@REearthable.com | https://REearthable.com/contact/

STANDARDS & CLAIMS

JAPAN POSITIVE LIST | CERTIFIED USDA BIOBASED | CALIFORNIA PROP 65 | EUROPEAN UNION REGULATION (EU) 10/2011 | EUROPEAN COMMISSION REGULATION (EC) 1935/2004 AND 2023/2006 | FOOD CONTACT SAFE | RoHS | PATENTED | BIODEGRADABLE | INDUSTRIAL COMPOSTABLE | ZERO PHTHALATES | BPA FREE