

Engineered Films for FMCG Packaging

Earthfirst® Biopolymer Packaging Films

Columbus, Ohio

Ghent, Belgium



Earthfirst[®] Biopolymer Films is a Global Leader in Engineered Compostable Films

- Sidaplex is a subsidiary of PSI that holds a patent on its Earthfirst[®] compostable sealant film
- 2238m² production facility in Ghent, Belgium
- Biopolymer film extrusion experience and products dating back to 2004
- As one of the world's largest biopolymer manufacturers today, our customer base includes the Americas, Europe, Asia, Africa and The Middle East
- Ghent, Belgium based and Columbus, Ohio, USA operation

Earthfirst[®] engineered films support FMCG brand differentiation

Earthfirst® Biopolymer Sealant Films

- Made from plant-based, annually renewable sources
- Greenhouse Gas (GHG) favorable to fossil-based alternatives
- Allows significant source reduction opportunities – barrier and sealant films are combined into one film
- Composts into safe, natural, organic substances

Who We Are

- Global technology leader in biopolymer sealant films with a portfolio offering both high performance and environmental degradability
- Patent on Earthfirst® compostable sealant films and one of the world's largest biopolymer manufacturers
- Ghent, Belgium, Europe and Columbus, Ohio, USA manufacturing sites

How We Contribute to a Package

- Recommend sealant film(s) for optimal package performance
- Manufacture bio film and provide to converters for incorporating into a multi layer lamination
- We collaborate with industry Packaging Converters, Print Web Suppliers, Co Packers, Zipper suppliers, etc.
- Our technical team provides support through the value chain of package manufacture, co packing, to a final, filled package

Earthfirst® Sealant Films



To Packaging Converter for Printing & Lamination to Other Sustainable Materials



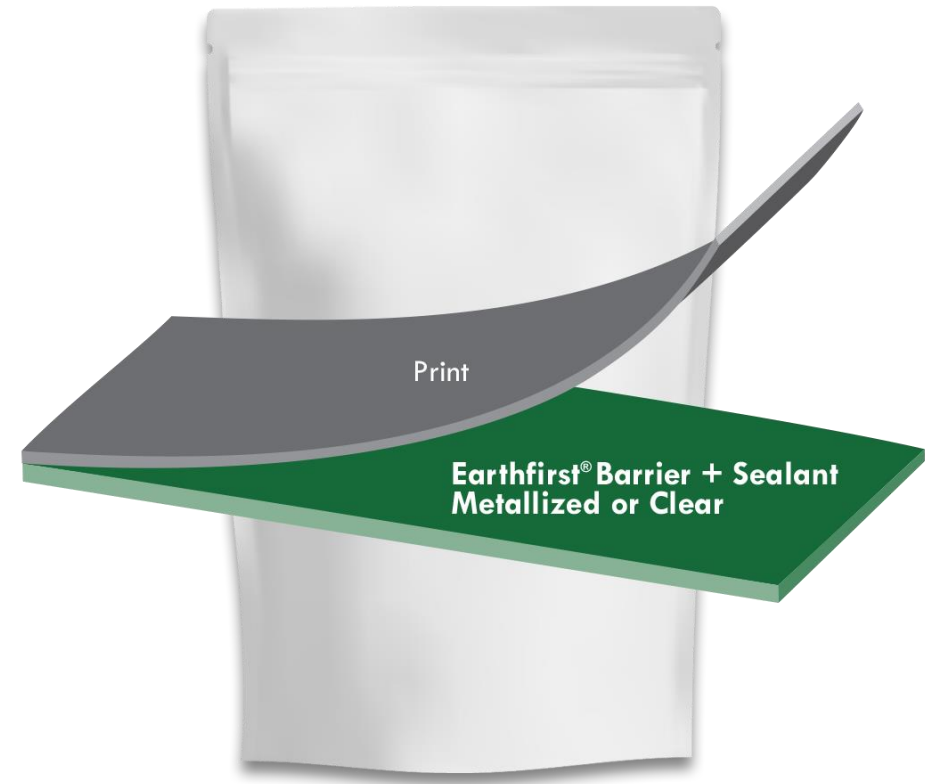
How We've Experienced Successful Projects

- Introductory Meeting | Targeted Products + Objectives
- Project Workshop with your team and Earthfirst® Films by Sidaplast team
- Package Evaluations & Recommendations
- Introductions if requested to Print Web suppliers

Earthfirst[®] films fulfill specific packaging objectives

Biopolymer films have **natural characteristics** that add value to the product

- Caulking - seals through contamination
- Good linear tear - enhances easy opening
- Stiffness – creates opportunity for significant down gauging
 - Up to 50% package weight reduction
- Lower sealing temperatures - allows for higher line speeds
- Natural affinity for barrier coatings



When would you use Earthfirst[®] films?

Choose Earthfirst[®] films if any 1 or more **Brand Packaging** objectives are:

Performance

- Strong airtight seals, machines at high speeds, source reduction

Improved Origin of Life (OOL)

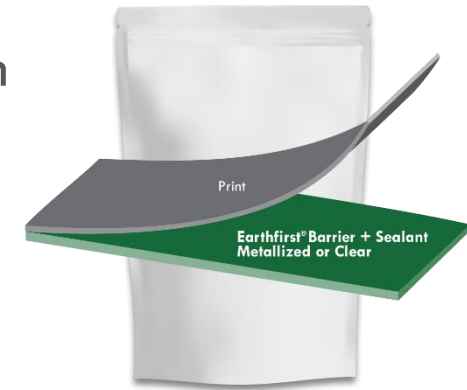
- Annually renewable plant-based material

Positive Environmental Impact

- Naturally lower carbon footprint (GHG), unit for unit
- Packaging source reduction – downgauging/combining barrier and sealant into 1 film

Positive End of Life (EOL)

- Industrial compostable and solid waste reduction in non compostable packages
- *Future* - home, soil and marine compostable options



Compostable packaging provides an unparalleled opportunity to capture food waste. In the EU, around 88 million tonnes of food waste are generated annually¹



Value to Packaging

- 1. High Performance** – *excellent seal strength, machines at high speeds, high yield*
- 2. Sustainability** – *variations of more sustainable flexible packaging from light-weighting to compostable are addressable with Earthfirst[®]*
- 3. Lower Operational Costs** – *efficiency & supply chain*

Voice of the Consumer



¹ Consumer Interest in Sustainability is Still Growing 19 February 2021, Food Business News

² Meet the 2020 Consumers Driving Change 13 February 2020 IBM Institute for Business Value in Association with National Retail Federation

³ Empowered Consumers Call for Sustainability Transformation 19 January 2021, Forbes

Information | Introduction

INTRODUCTION
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Columbus, Ohio

Ghent, Belgium