



Exceed™ Tough+

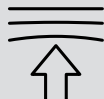
Exceed™ Flow

Exxtra™ Seal

Pet food sacks with enhanced performance eliminate need for extra packaging



Toughness



Improved stiffness



Enhanced sealability



Package quality



Easy processability

Challenge

Enhance pet food sack performance to eliminate deformation during stacking

Plásticos Especiales SAS (Plasticel), a leading polyethylene (PE) film converter based in Colombia, wanted to enhance the properties of its existing PE//PE pet food sacks to eliminate unattractive wrinkles during transportation. Plasticel designs and prints the films, before selling them to a leading consumer brand owner who converts them into 17kg and 22kg pet food sacks using their VFFS (Vertical Form Fill and Seal) machines.

“As a converting company, it is our responsibility to develop new solutions that will deliver innovative, high performance packaging to meet the needs of our Brand Owner customers,” said Rafael Aljure, Owner and General Manager, Plasticel. “Through collaboration we have been able to improve performance for a high-quality package, while delivering additional benefits.”

Solution

Sack film including Exceed™ Tough+, Exceed™ Flow, and Exxtra™ Seal performance PE polymers to boost performance

Having worked together for many years, Plasticel and ExxonMobil combined their expertise in film converting and polymer technology to develop a new solution for the PE//PE pet food sack films.

“At the outset of the project, the objective was to enhance packaging performance, to eliminate unattractive wrinkles, improve mechanical properties, and eradicate the need for corrugated cardboard which prevents the sacks sliding during transportation and storage. During trial runs, we came to understand the value of using Exceed Tough+ to improve the mechanical properties of the film,” said Edward Ramirez, Technical Service Engineer, Plasticel. “There was a huge improvement in film deformation during transportation and storage of the sacks that allowed a leading consumer brand owner to eliminate corrugated cardboard.”

Package design and technical support collaboration made a significant contribution to the development of the solution, which used a film formulation based on Exceed Tough+, Exceed Flow and Exxtra Seal performance PE polymers.

The pet food sack design is an all-PE* film structure consisting of two laminated films, with both plies made on a 3-layer Windmöller & Hölscher blown film line.

- The outside transparent reverse-printed PE ply is laminated to an inside white PE ply.
- The transparent ply includes Exxtra™ Seal m 1012 in the sealing layer to enhance sealability (hermeticity, hot tack and low SIT), while providing exceptional gloss and surface clarity. Exceed™ Flow m 0535 is used to increase stiffness.
- The inside white PE ply includes Exceed™ Tough+ m 0516 to enhance mechanical properties.
- Exceed™ Flow m 0520 makes the film easy to process by leveraging its unique molecular structure.

The outside transparent reverse-printed PE ply is laminated to the inside white ply at Plasticel before being converted into pet food sacks by the brand owner using VFFS machines.

Results

High-quality pet food sacks delivered to the stores without unattractive wrinkles

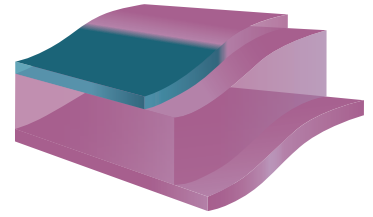
The collaboration has resulted in the fabrication of pet food sacks made with Exceed Tough+, Exceed Flow, Exceed™ and Exxtra™ Seal performance PE polymers that deliver:

- Enhanced performance to help prevent unattractive wrinkles for high-quality packaging.
- Improved stiffness and toughness to resist deformation of the sack surface during shipment.
- A solution with a sustainability benefit: the elimination of corrugated cardboard between sacks stacked on pallets reduces packaging material use.
- Lower costs due to elimination of packaging materials and reduced labor.

*"all-PE" means the base film layer polymers are all polyethylene-based, but allows for inclusion of additives such as PPAs, inks, pigments, adhesives, and the like

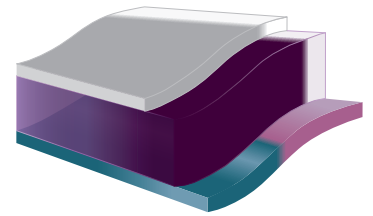
Transparent ply

- A. Exxtra Seal m 1012.MK
Exceed Flow m 0520.MC
- B. Exceed Flow m 0535.MC
Exceed Flow m 0520.MC
- C. Exceed Flow m 0520



White ply

- A. LLDPE + LDPE
White pigment
- B. Exceed Tough+ m 0516.ML
White pigment
- C. Exxtra Seal m 1012.MK
Exceed Flow m 0520.MC



"In developing a solution, it was important that the pet food sacks reflected the brand values of the customer," said Aljure. "While focusing on the primary objective of delivering a high-quality package that can withstand the rigors of handling and transportation, the solution also provided the sustainability benefit of eliminating the need for corrugated cardboard between bag layers, which resulted in reduced labor and costs."

Contact us for more information: [exxonmobilchemical.com/pe](https://www.exxonmobilchemical.com/pe)

ExxonMobil
Signature Polymers

Bring your impossible



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What's new: ExxonMobil Signature Polymers

All our polymers are now positioned under a single portfolio brand: Signature Polymers. The aim is to simplify our product architecture and naming to improve portfolio navigation for you. We would like to stress that our commitment to high quality products remains the same, it is the names that change. Everything else remains the same. We will be making these modifications over the next six months so you will see both old and new grade names highlighted during that time.

Here's a quick overview of brands and grade names that have changed in this document:

Legacy commercial name	New commercial name
Exceed™ 1012	Exxtra™ Seal m 1012
Enable™ 3505	Exceed™ Flow m 0535
Exceed™ XP 8656	Exceed™ Tough+ m 0516
Enable 2005	Exceed Flow m 0520

Some of our existing Exceed, Achieve, Paxon and premium PP/HD grades have moved to Exceed brand; most existing Enable grades have moved to Exceed Flow[+]; most of our existing Exceed XP grades have moved to Exceed Tough[+]; most of our existing Exceed S grades have moved to Exceed Stiff[+]. More details here https://www.exxonmobilchemical.com/en/brands/signature-polymers/exceed_high_performance_polymers or contact your ExxonMobil representative to know more.

Want to see what's changed in our portfolio? Go to [exxonmobilchemical.com/sptransform](https://www.exxonmobilchemical.com/sptransform)