



Exceed™ Tough+

## Polybol makes thinner heavy duty sack films that maintain mechanical performance



Consistent thinner films



Improved bag drop



Bag integrity



Less material use

### Challenge

Develop heavy duty sack (HDS) solutions that use less material while maintaining bag integrity.

Responding to ExxonMobil's requirements for heavy duty sack (HDS) for its polymer resins, Polybol, one of the largest plastic bags and packaging solutions companies in Latin America, wanted to produce thinner Form Fill and Seal (FFS) film solutions for HDS, while maintaining mechanical properties for bag integrity. Other requirements included low gauge variability, improved bag drop, and high-performance packaging conditions such as machinability, packaging speed, and coefficient of friction (COF) at a thinner film gauge than current standards.

### Solution

Thinner Exceed™ Tough+ based films maintain mechanical, sealing and optical performance.

ExxonMobil's performance polyethylene (PE) resins enabled Polybol to create a thinner FFS film with the required mechanical, sealing and optical performance. Exceed™ Tough+ m 0518.ML metallocene PE delivers the required bag drop performance and puncture resistance, and ExxonMobil's HDPE in the core layer provides stiffness. Polybol produces and prints the FFS film in Colombia, while ExxonMobil manufactures the sacks and packages resins on its FFS lines at its Mont Belvieu plant in Texas.

# Results

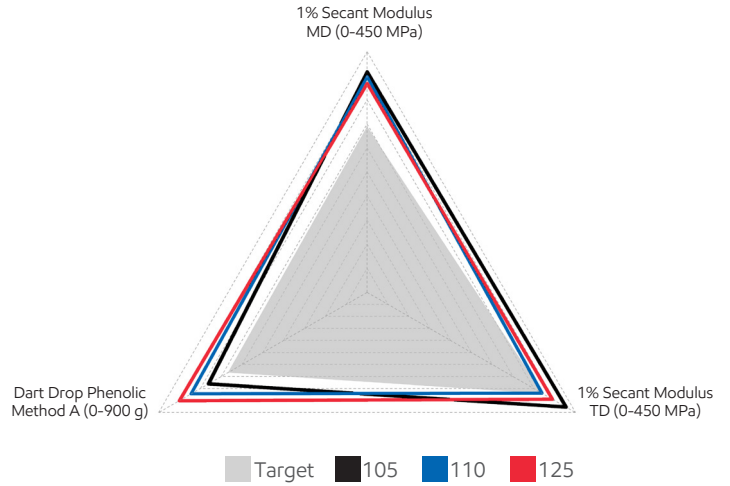
## Tough, downgauged films lead to new sales

Polybol was able to reduce FFS film thickness significantly by 16% from 125 microns to 105 microns, while maintaining mechanical properties and machinability thanks to the use of ExxonMobil performance PE. This FFS film solution demonstrates the high performance of Exceed™ Tough+ for downgauged solutions.

“Using less polyethylene resin in the FFS solution delivers a bag with sustainability benefits that include the potential to reduce cost and lower environmental impacts,” said Mauricio Bernal, Production Manager, Polybol. As a result, Polybol has become the first LAMEX-based FFS film supplier for ExxonMobil with more than 1kT of new sales volume.

“This collaboration has consolidated our two-way working relationship with ExxonMobil,” said Bernal. “Polybol has been awarded a portion of the total contract for FFS films which represents new sales volume for the company, and we are very excited about the possibility of further opportunities.”

## Mechanical properties of 125-, 110- and 105-micron HDS films



## Bag drop test results

Grade	6 ft	4.5 ft	3 ft
110mic	Passed	Passed	Passed
105 mic	Passed	Passed	Passed

Tests conducted by ExxonMobil

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

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Signature Polymers

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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™ XP 8358ML	Exceed™ Tough+ m 0518.ML

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](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)