



Exceed™

PELEX improves performance and properties of stretch films with the incorporation of Exceed™ performance polyethylene



Improved
processability



Dart drop



Tear resistance



Downgauging
opportunity

Data and results presented herein apply specifically to the noted application under this case study. Your results may differ depending on factors such as operating conditions, equipment and materials used.

Challenge

PELEX S.A.S. is a private Bogotá-based Colombian company, dedicated to the manufacture of plastic films for packaging, sanitary products and flexible packaging.

The company is focused on continuous improvement and innovation. When ExxonMobil presented its novel Exceed performance polyethylene (PE) developed for high performance stretch applications for cast machines, PELEX was eager to evaluate it with the goal of providing an improved stretch film solution to its customers. The targeted application is high performance stretch, with elongation higher than 400% to be used in the beverage industry.

Solution

Grade advice and formulation design recommendations were provided by ExxonMobil for PELEX to evaluate on its machines in order to assess any potential benefits to its customers based on their market experience. Historically, PELEX incorporated formulated blends of Exceed™ m 4518.CB metallocene PE within their stretch solutions. PELEX received samples and ran in-house trials adding Exceed m 3516 metallocene PE to Exceed m 4518.CB metallocene PE.

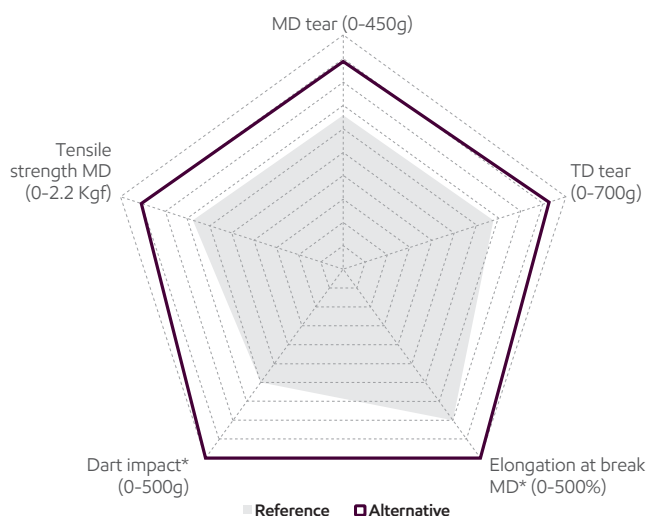
Validation of the film incorporating Exceed m 3516 was made in high demanding palletizing machines where the speeds are typically higher than traditional palletizing equipment. Sergio Fernández, General Manager at PELEX, mentioned "Stretch films we have developed with ExxonMobil performance PE have allowed us to achieve excellent performance in manual and automatic applications requiring high stretch ratios."

Results

PELEX was pleased with the results. The solutions incorporating Exceed™ m 3516 metallocene PE exhibited better processability, dart and tear resistance compared to previous designs. Francisco Hernandez, R&D Manager at PELEX, notes, "Developing a stretch film with superior mechanical properties provided performance benefits in high speed palletizing machines and allowed for high elongation values in the pre-stretch units, which in turn, resulted in a higher yield in the application (less plastic per pallet)".

Francisco also mentioned, "It's important that we continuously offer innovative options to our customers and the Exceed performance PE-based solution has provided a tangible performance improvement. Our customers are pleased that it is a solution that offers a downgauging opportunity as well as improved processability. We look forward to continuing to work with ExxonMobil to help exceed our customer expectations."

PELEX lab test results - Automatic stretch



Lab tests performed by PELEX
* Dart impact and Elongation at break reached maximum value on customer methodology

PELEX also leveraged an Exceed performance PE-based formulation for its manual stretch, achieving 25% gauge reduction while improving dart impact resistance, going from a range of 150 – 200g to numbers above 200g.



Contact us for more information: exxonmobilchemical.com/pe

ExxonMobil
Signature Polymers

Bring your impossible



©2025 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

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™ 4518CB	Exceed™ m 4518.CB
Exceed™ XP 8346	Exceed m 3516

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)