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PELEX improves performance and properties of stretch films with the incorporation of Exceed™ XP 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™ XP 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™ 4518CB performance PE within their stretch solutions. PELEX received samples and ran in-house trials adding Exceed™ XP 8346 performance PE to Exceed 4518CB performance PE.

Validation of the film incorporating Exceed XP 8346 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.”

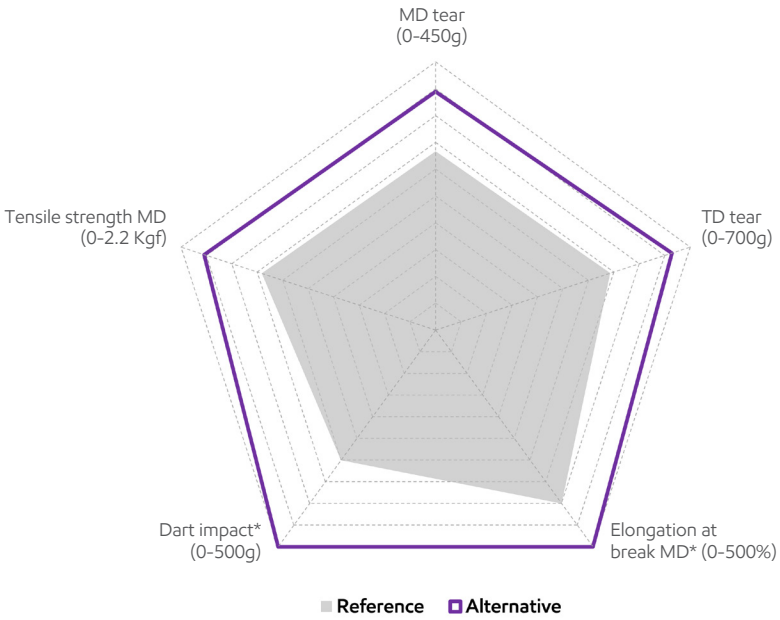
PELEX

Results:

PELEX was pleased with the results.
The solutions incorporating Exceed™ XP 8346 performance 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 XP 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 XP performance PE-based formulation for its manual stretch, achieving 25% gauge reduction while improving dart impact resistance, going from a range of 150 – 200 g to numbers above 200 g.

Why ExxonMobil PE? Why today?

tomorrow's **performance** today

What some might view as solutions that will only happen in the future, ExxonMobil PE is making possible today – through our innovative and reliable products, collaborative approach, technology leadership and support, and our unmatched global supply and resources. Why wait for tomorrow to advance your business today? Contact your ExxonMobil PE representative and begin experiencing tomorrow's performance today in your stretch films.

Contact us for more information:
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