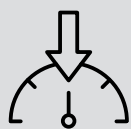




Exceed™ Flow Exceed™

ExxonMobil Signature Polymers and Flexo Spring work together to advance cost efficiency by reducing material consumption in bread bag packaging



Downgauging



Cost
reduction



Excellent
opticals



Enhanced
mechanical
resistance

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

A leading bread brand owner in Colombia sought a smarter way to reduce packaging costs without compromising quality, performance, or shelf appeal.

The existing structure—composed of C8 LLDPE, LDPE, and C4 LLDPE—met mechanical and optical requirements but offered limited opportunity to unlock additional value.

The challenge was clear: reduce material usage per bag while maintaining performance and enhancing visual appeal, all without disrupting existing operations.

Solution

To address this challenge, ExxonMobil Signature Polymers and Flexo Spring came together with a shared vision: to rethink the film design and create value across the entire value chain. By combining ExxonMobil Signature Polymers expertise in polymer design with Flexo Spring's deep knowledge of extrusion and conversion processes, the team developed an optimized film solution through downgauging.

The result was a redesigned three-layer coextruded film structure delivering a 17% reduction in material thickness. The ExxonMobil Signature Polymers portfolio played a critical role in achieving this outcome, with a tailored formulation designed to ensure both processability and high performance under the customer's specific extrusion conditions.

In the new design, Exceed™ Flow performance PE was used to maintain stiffness and enhance optical properties, while Exceed™ performance PE grades delivered excellent sealing performance, tear resistance, and shelf appeal. This carefully balanced structure enabled stable processing and consistent product quality, even at reduced thickness.



FLEXO SPRING
EMPAQUES FLEXIBLES

Flexo Spring translated this formulation into industrial reality by optimizing extrusion and conversion processes to ensure seamless production. The innovation extended beyond the film itself. Together, the teams introduced a flat-bottom bread bag design, enhancing shelf presentation and improving filling efficiency, delivering tangible benefits to the brand owner's operations.

Results

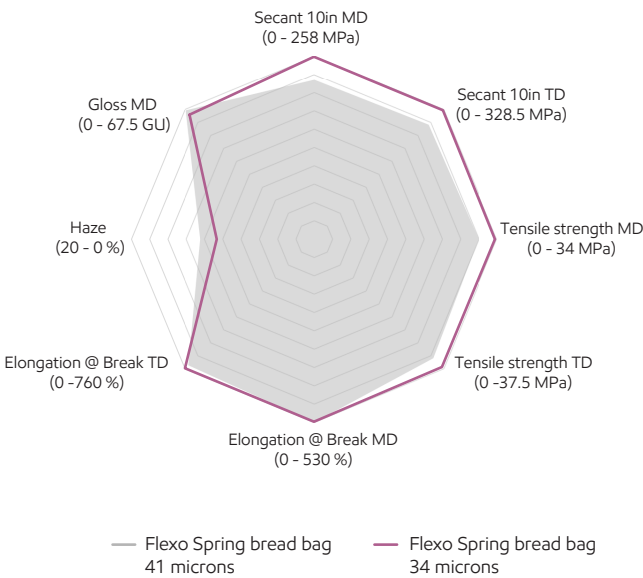
Implementation of the solution delivered measurable benefits across multiple dimensions. With the downgauged structure, the brand owner can now produce approximately 17% more bags from the same amount of material, unlocking significant cost savings while maintaining mechanical integrity, sealing performance, and durability.

The project maintained packaging film haze below 10%, a common requirement in the bread industry, helping ensure clear product visibility and consumer appeal.

Operationally, the optimized structure provided consistent processing and reliable sealing, while the new bag format increased filling speed and overall production efficiency.

This collaboration demonstrates what's possible when innovation is driven by partnership. By aligning material technology with processing expertise, ExxonMobil Signature Polymers and Flexo Spring transformed a cost-reduction challenge into a value-creation opportunity across the entire value chain.

The solution not only helps address the immediate needs of a bread bag producer in Colombia but also highlights how targeted material innovation and process optimization can drive business growth, improve competitiveness, and create long-term value for both brand owners and converters.



Test item	Test method
Tensile at break	Based on ASTM D-882
1% secant modulus	Based on ASTM D-882
Gloss	Based on ASTM D-2457
Total haze	Based on ASTM D-1003

Data from tests performed by or on behalf of ExxonMobil. R2602-032548

ExxonMobil

Signature Polymers

Bring your impossible

ExxonMobil Signature Polymers was born from the belief that people fuel progress. From automotive and construction to packaging, agriculture, industrial, and beyond, we leverage the scale and reach of ExxonMobil to deliver the insights and innovations that empower our diverse, global partners to take their businesses to new heights. We continuously work to provide the listen-first, service-driven, game-changing collaboration that unlocks opportunities for our partners and advances their business goals.