



Exceed™ XP performance polyethylene

Plastyverg turns to Exceed™ XP performance PE for stretch hood solutions without the use of EVA, that are designed for recyclability*

Potential key benefits:





High stretchability and holding force



High puncture resistance



Easy to process

Challenge

Create high-integrity stretch hood films without the use of EVA that can help improve recyclability

Plastyverg, a leading converter of a range of flexible films based in Chile, needed to create stretch hood films that could offer improved recyclability over the incumbent. Faced with competition from imported stretch hood film solutions, Plastyverg wanted to improve its competitiveness as demand for solutions that offer sustainability benefits increases. To help achieve this objective, Plastyverg decided to switch from its EVA-based films, which can be challenging to mechanically recycle, to a stretch hood film solution that does not contain EVA.

"Due to sustainability related concerns and Extended Producer Responsibility (EPR) laws in Chile there is increasing demand from Brand Owners for film solutions that can be easier to recycle. As a result, many customers have been turning to imported stretch hood films to meet their needs," said Aníbal Gamboa, General Manager, Plastyverg. "To remain competitive, Plastyverg needed to change its existing EVA-based stretch hood solution to a solution that does not contain EVA, which can be easier to recycle while maintaining film performance."

Solution

Exceed XP 7 series enables a stretch hood solution that does not contain EVA that can be easier to recycle

Plastyverg and ExxonMobil™ collaborated to develop a solution for stretch hood applications that does not contain EVA. The technical and commercial support team of ExxonMobil's polyethylene business, an experienced leader in developing solutions designed for recyclability while maintaining performance, recommended using their Exceed XP 7 series in the film formulation.

While the primary objective of creating a stretch hood solution that does not contain EVA, which can be easier to recycle, was achieved, the mechanical properties—required to help protect products on pallets and help provide load stability for safety—were also improved versus the EVA-based solution. Plastyverg also noted that the solution that did not contain EVA resulted in better coefficient of friction control compared to the EVA-based solution.

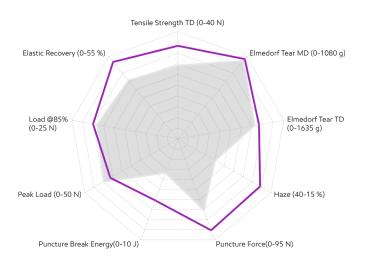


Compared to the existing EVA-based solution, the 5-layer co-extruded solution, based on Exceed™ XP 7 series, offers:

- Improved recyclability*
- Excellent extrusion capacity and bubble stability for good thickness profile control.
- 5% higher holding force, which is key for pallet stability and safe transportation.
- Up to 30% higher elastic recovery, which can contribute to easy stretching and efficient stretch hood operation.
- Up to 28% higher puncture force, which can lead to less failures, especially in the case of products with sharp edges, and better product protection.
- Opportunities to tailor the formulation with additives that can provide excellent aging properties, offering quality and safety regardless of weather conditions.

Data from tests conducted by, or on behalf of, ExxonMobil* and/or Plastyverg

^{*}Recyclable in communities with programs and facilities in place that collect and recycle plastic film



■ EVA-based market reference (100µm)

■ EVA-free ExxonMobil solution (100µm)

Results

Easier to recycle Exceed XP 7 series-based stretch hood film solutions help create new business opportunities

The stretch hood film solution based on the Exceed XP 7 series can be easier to recycle and the mechanical properties are enhanced. The solution can withstand the most demanding stresses helping Brand Owners protect and transport their goods safely through the value chain. The solution is well suited for pallets of heavy duty sacks, cardboard boxes, and other load types.

The enhanced mechanical properties offer the potential for an additional sustainability benefit of using less resin as the film can be downgauged, depending on the application type and the stretch hood machine configuration.

"Plastyverg, in collaboration with ExxonMobil, was a pioneer in developing a stretch hood film that does not contain EVA for the South American Pacific Coast market," said Gamboa.

"This Exceed XP 7 series-based film is the first domestic production of a stretch hood solution that does not contain EVA. Other films that do not contain EVA currently on the market are imported and may not be cost competitive. With positive feedback from more than three customers already, the new solution has been sparking interest amongst different end-users."



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