



Exceed™ Flow

Politiv creates high performance greenhouse films without compromising processability or bubble stability



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

Challenge

Improve the mechanical properties of greenhouse film without compromising bubble stability or high output.

AA Politiv is a leading manufacturer of agricultural films located in Israel. The company's factory is in a modern building in Kibbutz Einat, where it manufactures an extensive range of smart films for agriculture and industry with a sizable, versatile manufacturing capacity.

Politiv was challenged to maintain bubble stability during processing bubbles up to 17 meters wide while also improving mechanical properties of the film. Maintaining bubble melt integrity demands a solution with a low Fractional Melt Index with formulations traditionally dominated by LDPE-based resins.

Solution

Politiv worked closely with ExxonMobil Signature Polymers to determine a solution.

"Collaborating with ExxonMobil was key to determining the optimal solution. Exceed Flow with its long chain branching shows excellent bubble stability and can replace up to 80% of LDPE in the formulation" said Ahed Watad, Technical Manager, Politiv. "We found that not only was bubble stability maintained, but mechanical properties also improved."



Results: Greenhouse performance of Exceed™ Flow vs. LDPE





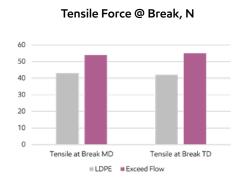


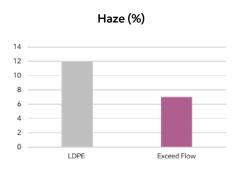


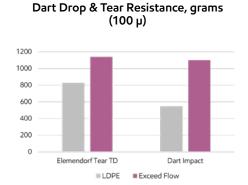


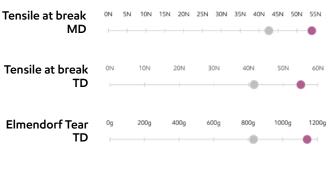
During our cooperation with ExxonMobil, we had the opportunity to test Exceed Flow metallocene performance polymers from processability, bubble stability, productivity output and mechanical properties perspective vs the LDPE based grades, with the following findings:

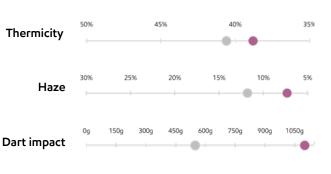
- The mechanical improvements of moving from LDPE to Exceed Flow gives a boost in the dart drop, significant increase in Elmendorf tear resistance(TD) and in tensile strength (MD)
- Exceed Flow can provide longer aging performance even when downgauged by 20%
- Using Exceed Flow also provided excellent bubble stability in our wider greenhouse films production and easy processibility, therefore we see conventional LDPEs can readily be upgraded to Exceed Flow by up to more than 80% in terms of bubble stability and processibility greenhouse film applications, of course with the above-mentioned added benefits on mechanical properties.











Reference 100 µm LDPE

Exceed™ Flow performance polymer with ExxonMobil EVA 100 μm.

Data from tests performed by or on behalf of ExxonMobil

E%onMobil 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, gamechanging collaboration that unlocks opportunities for our partners and advances and business goals.



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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. The composition of the products are unchanged, it is only the names that updated. We will be making these modifications over the next few months, through mid 2025, 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 been changed in this document:

Legacy Commercial Name

New Commercial Name

Enable™ Exceed™ Flow

Want to see what's changed in our portfolio? Go to exxonmobilchemical.com/sptransform