



Exceed™ Tough+

Vistamaxx™

# New generation of stretch hood films with sustainability benefits that also maintain performance



High stretchability and holding force



High puncture resistance



Incorporates recycled content



Formulation simplification

## Challenge

Stretch hood film is the most innovative film amongst palletization methods and has the potential advantage of reduced energy consumption versus shrink films; no energy is required for the shrinking process.

How can we further contribute to a circular plastics economy by developing stretch hood films with sustainability benefits, while maintaining properties demanded by the application? This means incorporating some recyclate (or recycled plastic content) while keeping the integrity and strong mechanical performance required for these films in stretchability and puncture resistance.

**"The new 'tax on plastic' already implemented in several European countries (e.g. UK and Spain), and the growing need to increase recyclability of industrial films, are helping to accelerate the demand for stretch hood film based on a polyethylene (PE) formulation, that incorporate recycled content while avoiding the inclusion of EVA."**

Timm Strübbe, Product Manager Industrial Packaging  
Bischof+Klein®

## Solution

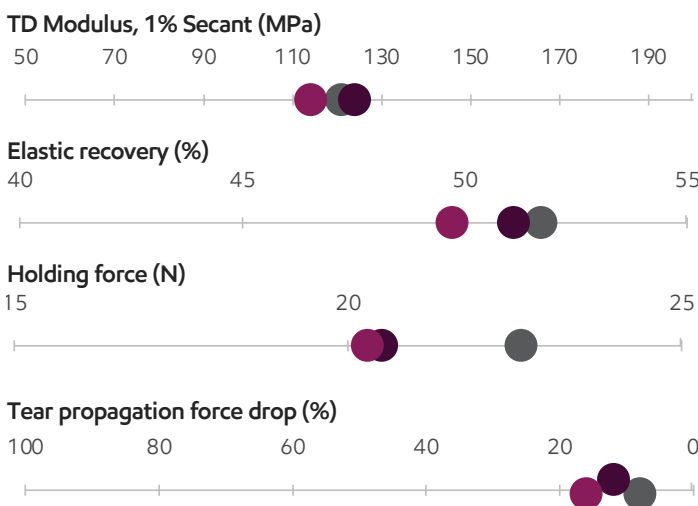
With proper selection of recyclate (PIR = Post Industrial Recycled content or PCR = Post Consumer Recycled content), a low-density Exceed™ Tough+ performance polymer-based formulation with Vistamaxx 6102 can help attain superior mechanical performance. Retained physical property performance improved end of life management options for the packaging film, helping to support a circular plastic economy. Hence, this solution can increase recyclability versus the reference EVA-based film.

This approach to stretch hood formulation, based on Exceed™ Tough+ performance polyethylene has received interest from the market place, as upcoming legislation may require increased recyclability and incorporation of recycled PE to help lower virgin resin consumption. Film converter Bischof + Klein has developed stretch hood solutions adopting a similar approach for their film structure. Named SmartFlex®, these solutions can easily adapt to different stretch hooding equipments already available, which can help facilitate easy market adoption.

ExxonMobil would like to thank Lachenmeier for their cooperation with the hooding trials.

\* Recyclable in the few communities with programs and facilities in place that collect and recycle plastic film

	● EVA Reference 90µm 20/60/20	● 30% PCR#1* 90µm 15/70/15	● 30% PCR#2** 90µm 15/70/15
Skins	Exceed m 1018	Exceed Tough+ m 0512	Exceed Tough+ m 0512
Core	EVA	43% PCR#1 33% Exceed Tough+ m 0211 24% Vistamaxx 6102	43% PCR#2 33% Exceed Tough+ m 0211 24% Vistamaxx 6102



(\*) PCR#1: 0.922 ± 0.004 g/cm<sup>3</sup>; 2 ± 0.25 g/10min; lower gel level  
 (\*\*) PCR#2: 0.920 ± 0.01 g/cm<sup>3</sup>; 1.95 ± 0.55 g/10min; higher gel level

The hooding trial has been in collaboration with Lachenmeier®, a brand of Signode.

## Result

Films based on Exceed Tough+ polymers can provide these benefits versus EVA reference film solutions:

- Designed for recyclability\*: Allows formulation of PE-based film and avoids EVA in order to potentially benefit from existing recycling streams; helping to support a circular plastics economy.
- Allows for simple film formulation with the sustainability benefit of the incorporation of recycled content.
- High holding force for load stability.
- Comparable hooding performance versus industry reference formulation.
- Comparable tear resistance.

Test item	Test method
Tensile properties	based on ExxonMobil test method
Stretch hood test TD (Elastic recovery)	based on ExxonMobil test method
Stretch hood test TD (Holding force)	based on ExxonMobil test method
Elmendorf tear resistance	based on ASTM D-1922
Stretch hood test - MD tear propagation	based on ExxonMobil test method
Needle puncture	based on ExxonMobil test method

Contact us for more information: [exxonmobilchemical.com/pe](https://www.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™ 1018	Exceed m 1018
Exceed™ XP 7052	Exceed™ Tough+ m 0512
Exceed XP 7021	Exceed Tough+ m 0211

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](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)