



Exceed™ Tough+

Extreme performance flexitank films

Films based on ExxonMobil’s Exceed™ Tough+ performance polymers deliver flexitanks with exceptional integrity that can withstand the most demanding conditions for reduced damage and less product spoilage.

	Exceptional flex-crack resistance		Excellent seal performance		Extreme toughness and strength		Film formulation simplification		Broad operating window
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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.

Delivered attributes	Derived benefits & potential value
<ul style="list-style-type: none">▪ Exceptional flex-crack resistance▪ Extreme toughness and strength	<ul style="list-style-type: none">▪ High package integrity from reduced risk of pinholes▪ Minimized waste from production through to the customer
<ul style="list-style-type: none">▪ Excellent seal performance	<ul style="list-style-type: none">▪ Reduced risk of leakage▪ Increased cost effectiveness during transportation
<ul style="list-style-type: none">▪ Film formulation simplification	<ul style="list-style-type: none">▪ Simplify raw material sourcing and operations through lower inventory costs▪ Helps eliminate blending complexity and the risk of costly errors

High integrity liner

Exceed Tough+ performance polymers allow converters to fabricate films with exceptional flex-crack resistance and toughness that deliver excellent flexitank integrity. Films made with these polymers absorb shock and mitigate the risk of flex-crack pinholes that are caused by the repeated movement of packaged goods during production, handling and transportation. Additionally, excellent sealing performance minimizes leakage and waste through to the customer.

Innovation opportunities

Converters can use Exceed Tough+ to develop new-to-the-world, cost-effective flexitank solutions. Due to extreme integrity, flexitanks based on Exceed Tough+ can withstand the most demanding conditions for less liner damage and reduced product spoilage. Offering extreme dart impact, flex-crack resistance and tensile strength, film formulations can be tailored to meet the applications’ needs. If even higher flex-crack resistance is required, a low dosage of Vistamaxx™ performance polymers can be added to the formulation.

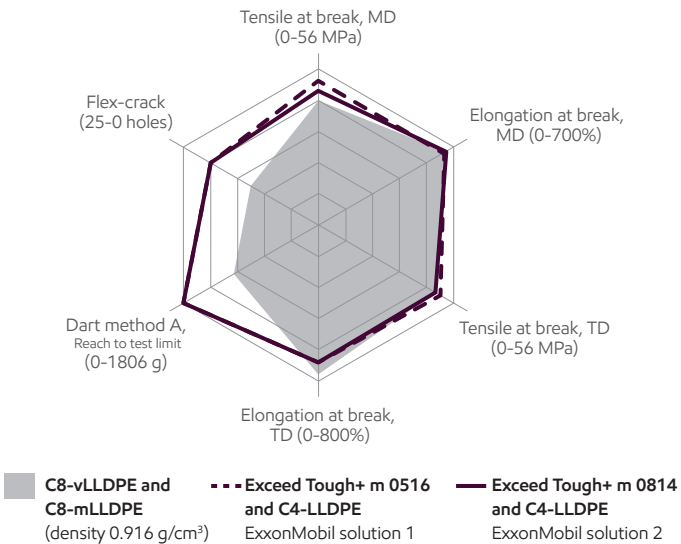
Cost optimization

Exceed Tough+ allows converters to leverage processability and optimize film formulations. These polymers offer a range of solutions for bubble stability and ease of extrusion to optimize solutions. The outstanding flex-crack resistance and toughness eliminates the need for high cost polymers and allows converters to tailor film solutions through linear polyethylene blends or downgauging.

Liquid applications

Flexi-tanks predominantly used to transport bulk liquids, such as food grade liquids (wine and beverages), non-hazardous cargo, industrial goods (lubricants), and agricultural products (fertilizers), require flexitanks with higher mechanical performance.

Film property data comparison for 125 µm Exceed™ Tough+ performance polymers based solutions and market reference films



Data obtained from tests performed by or on behalf of ExxonMobil

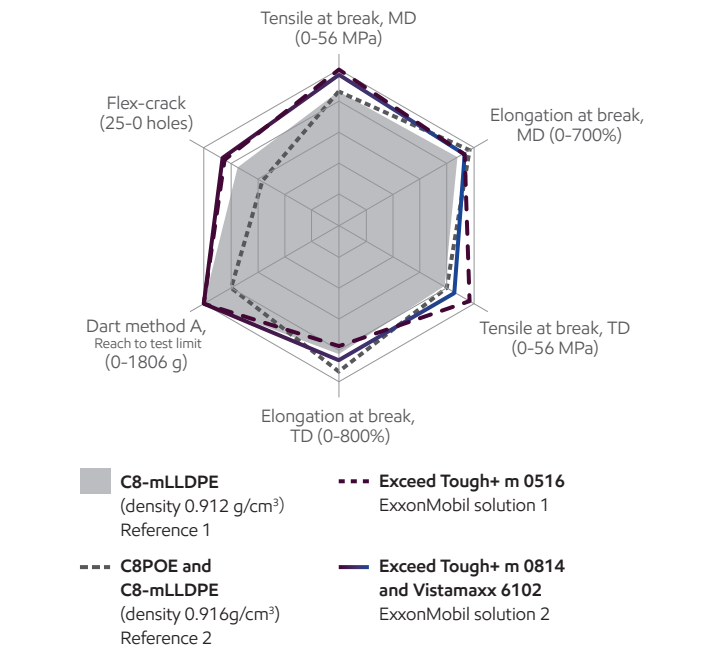
Grades	Melt index (g/10 min)	Density (g/cm³)
Exceed™ Tough+ m 0516	0.50	0.916
Exceed™ Tough+ m 0814	0.80	0.914
Exceed™ Flow+ m 0516	0.50	0.916
Exxtra™ Seal m 1012	1.0	0.912
Exceed™ m 1018	1.0	0.918
Exxtra™ Seal POP 2008.MA	2.0	0.908
Vistamaxx™ 6102	1.4	0.862

Exceed Flow, Exceed, Exxtra Seal performance polymers

Extreme performance liquid packaging

Flexi-tanks for high-end liquid products require flexitanks offering mechanical properties with eXtreme Performance.

Film property data comparison for 125 µm Exceed Tough+ and Vistamaxx™ performance polymers based solutions and market reference films



Test	Test method
MI	ExxonMobil method
Density	ExxonMobil method
Tensile strength	ExxonMobil method
Dart impact	ExxonMobil method
Flex crack* (Labthink)	ExxonMobil method

* Pinhole after 10,000 cycles

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 and business goals.

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™ XP 8656	Exceed™ Tough+ m 0516
Exceed™ XP 8784	Exceed™ Tough+ m 0814
Exceed™ XP 6056	Exceed™ Flow+ m 0516
Exceed™ 1012	Exxtra™ Seal m 1012
Exceed™ 1018	Exceed™ m 1018
Exact™ 3236	Exxtra™ Seal POP 2008.MA

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 Tough+ 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 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/en/brands/signature-polymers/exceed_high_performance_polymers)