

NEWS

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ExxonMobil Introduces Novel HDPE Grade to Help Converters Create Mono-Material Machine Direction Oriented (MDO) Flexible Films

SPRING, Texas – ExxonMobil has developed a novel high density polyethylene (HDPE) grade, ExxonMobil™ HD7165L, for Machine Direction Oriented (MDO) PE film applications. Designed for recyclability*, HD7165L can help converters create mono-material laminates to replace multi-material laminate structures which can be difficult to mechanically recycle.

Offering excellent optical properties and outstanding mechanical properties, ExxonMobil™ HD7165L is well suited to help enable mono-material laminated packaging that can be used to package products like nuts, crackers, condiments, granola bars, and potato chips.

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- Designed for recyclability, ExxonMobil™ HD7165L can help converters create mono-material MDO laminated packaging structures which:
 - Offer excellent optical properties and outstanding mechanical properties
 - Can be used for packaging products like nuts, crackers, condiments, granola bars, and potato chips
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“The development of new HD7165L has been driven by market demand from brand owners and processors looking to develop all-PE packaging which, in turn, has created a need for print webs made of blown MDO-PE films,” said Nilesh Savargaonkar Principal Customer and Application Development Engineer, ExxonMobil.

ExxonMobil™ HD7165L can help enable converters to produce blown MDO-PE films with 60-70 percent HDPE for enhanced stiffness and high heat resistance**. High output rates in excess of 400kg/hr are possible, while bubble stability is maintained.

High MDO stretch ratios as high as 7:1, with very high stiffness (1% secant modulus as high as >200 kpsi) can be achieved. With haze less than ten percent and gloss higher than 60 percent, ExxonMobil™ HD7165L offers excellent optical properties. Used as a print web of a PE-PE laminate, ExxonMobil™ HD7165L offers high heat resistance, stiffness for a lack of extensibility, and excellent printability for optimum brand promotion.

In blown MDO-PE film applications, ExxonMobil™ HD7165L offers high, uniform orientation, gauge stability, and low gels for easy processability.

Compared to a market reference HDPE grade (density 0.962 g/cm³), ExxonMobil™ HD7165L (density 0.961 g/cm³) delivers better shear thinning behavior and extrudability, higher melt strength for bubble stability, excellent orientability, and gauge uniformity.

“Brand owners and the value chain globally have ambitious goals around the development of packaging that can be recycled,” said Justin Schmader, CANUSA Market Development Manager. “Our ongoing innovation to develop new polyethylene grades that can help enable the creation of mono-material packaging structures is one step in helping them potentially achieve those goals.”

[Access datasheet](#)

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

**Compared to films with a lower percentage of HDPE incorporated

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About ExxonMobil [Polyethylene](#)

ExxonMobil’s polyethylene portfolio offers converters and brand owners an extensive range of performance polymers as well as specialty co-polymers and additional polyethylene grades for numerous applications. Our performance polymer flagship brands offer superior mechanical performance and unparalleled properties.

With critical properties such as strength, durability and toughness, ease of sealing, and outstanding optics, our leading-edge polyethylene formulations help create, protect, and promote products throughout the packaging, agriculture, industrial, personal care, and hygiene markets. From store shelves, to harvesting, to shipping, to the factory, products made with our performance polymers can help reduce the risk of waste, breakage, and spoilage across the value chain.