



Info Sheet
Flexible Films

SURPASS® HPs167-AB Resin

Downgauge and Increase Moisture Barrier Performance by up to 50%

Achieve ultra-high moisture-barrier performance with SURPASS HPs167-AB resin. This innovative resin offers more flexibility in balancing shelf life and gauge requirements for a variety of food packaging applications. Package designers can now challenge the status-quo of traditional structures by using SURPASS HPs167-AB resin to replace higher-cost materials, leading to more sustainable, cost-effective solutions.

SURPASS HPs167-AB ultra-high barrier sHDPE (single-site catalyst high-density polyethylene) resin features a unique molecular architecture, permitting significant improvements in moisture-barrier performance. This best-in-class solution can deliver as much as a 50% improvement in barrier performance - both moisture and oxygen - and significant improvement in stiffness over conventional HDPE resins.

SURPASS HPs167-AB resin sets the standard for moisture-barrier performance for HDPE materials. It is manufactured using NOVA Chemicals Advanced SCLAIRTECH™ process technology in combination with our proprietary, single-site catalyst technology.



Case Study: Dry Cereal Manufacturer Selects SURPASS HPs167-AB Resin

The benefits of SURPASS HPs167-AB resin are currently being enjoyed by a major North American cereal producer. NOVA Chemicals' technical staff worked closely with the cereal manufacturer and its film producer to engineer the best solution for all parties. The end result is a finished package that provides excellent product freshness while reducing the amount of film required - lowering costs and increasing sustainability.

Key Attributes

- Outstanding water vapor transmission rate (WVTR) properties in high-barrier applications
- Excellent oxygen transmission rate (OTR) properties in mid-barrier applications
- Unmatched stiffness
- Excellent organoleptic properties
- Consistent barrier performance across a broad range of processing conditions

Benefits

- Achieve the same barrier performance while significantly down-gauging to reduce costs and achieve higher levels of sustainability, OR
- Maintain film gauge and enable structure redesign to create new packaging opportunities and achieve a cost advantage
- Use co-extruded structures in place of laminations in some barrier applications

Applications:

- Cookie, cereal, and cracker liners
- Moisture sensitive product packaging
- Meat, cheese, and poultry wrapping
- RTE (ready-to-eat) foods
- Lidding films
- Protection of moisture sensitive polymers in co-extruded structures

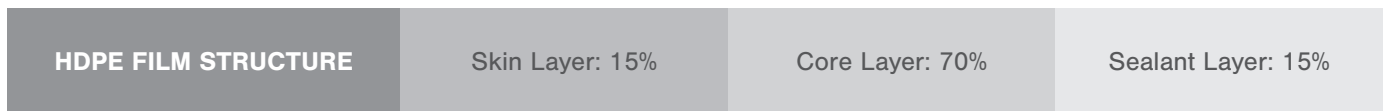
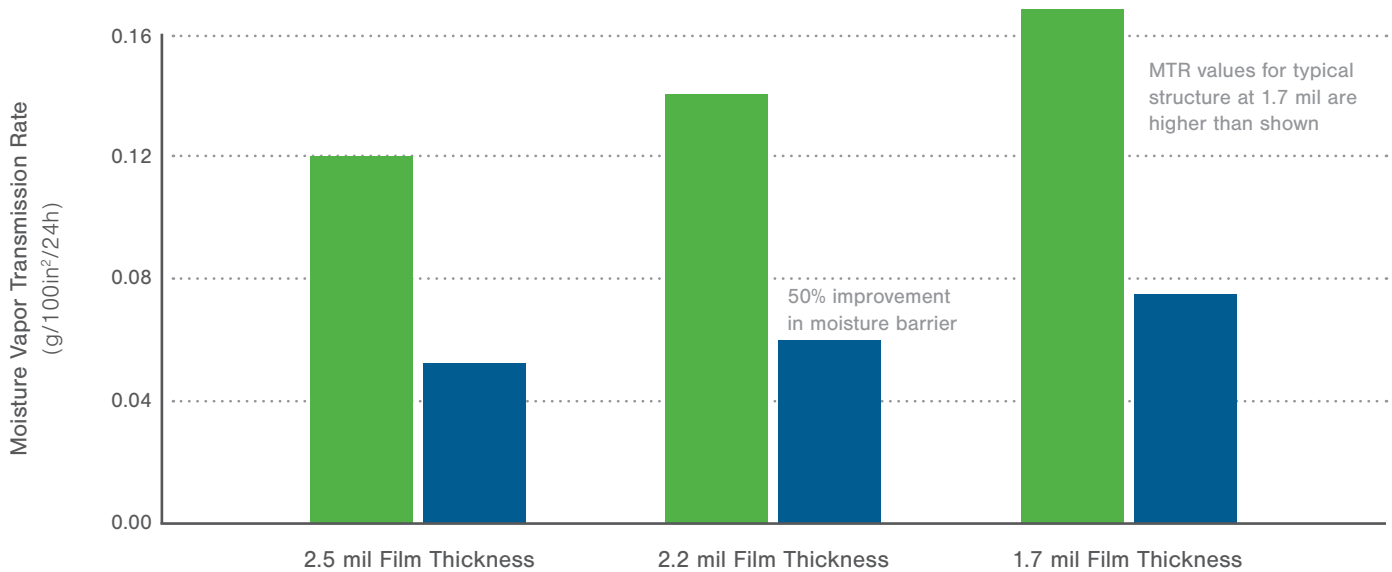
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Performance Comparison

Achieve up to 50% moisture barrier performance improvement with SURPASS HPs167-AB resin

- HDPE1/HDPE2/Sealant
- HDPE1/HPs167-AB/Sealant



MOISTURE VAPOR TRANSMISSION RATE CO-EXTRUDED FILMS



Spotlight: Sustainability



Use less material and increase sustainability throughout the supply chain. By using less film material to achieve ultra-high moisture barrier performance, it is possible to reduce the carbon footprint. Energy consumption in both production and transportation will be reduced, in addition to the direct reduction of materials. For example, if the North American carton liner and sleeve market, estimated at 120 million lbs., were to be converted to SURPASS HPs167-AB resin – targeting an average 20% down gauge – the carbon footprint reduction would be the equivalent of the CO₂ produced by the burning of 9 million gallons of gasoline per year.