

SURPASS® PERFORMANCE FILMS

innovation

Meat, Cheese & Poultry Applications

CASE STUDY: Reduction of cost through innovative design utilizing SURPASS® FPs016-C resin



NINE-LAYER STRUCTURE DESIGN USING SURPASS FPs016 RESIN

FPs016-C (Exterior-print layer)
FPs016-C (bulk layer)
FPs016-C (bulk layer)
FPs016-C (Tie layer)
EVOH
FPs016-C (Tie layer)
FPs016-C (bulk layer)
FPs016-C (bulk layer)
FPs016-C (Sealant)

HOT DOG PACKAGING REQUIRED ATTRIBUTES:

- Medium oxygen barrier
- Abuse resistance
- Puncture, abrasion and flex crack resistance
- Seal through product contamination
- Excellent clarity, high gloss
- Thermoformability

SURPASS® FPs016-C RESIN OCTENE sLLDPE FILM RESIN

FOR USE AS:

- Sealant layer
- Exterior-print layer
- Tie layer blending layer
- Interior (bulking) layer

INNOVATION WITH SURPASS® FPs016-C RESIN

NOVA Chemicals' SURPASS FPs016-C performance film resin proved a successful fit for use when developing a multi-layer structure for hot dog packaging. SURPASS FPs016-C resin proved an ideal material for use in both the sealant layer (meeting the needs of seal through contamination) and as a tie layer carrier for the tie layer concentrate blend. All results were independently verified by packaging industry consultants Gehrke, Kaas and Associates, LLP.

NOVA Chemicals utilized a Brampton Engineering multi-layer blown film line to successfully develop a nine-layer film structure, showing the versatility of SURPASS FPs016-C resin. This product was used in over 50% of the co-ex structure, and demonstrated an excellent value proposition by reducing the material cost of the nine-layer structure versus the control by more than 30%. The FPs016-C grade provided excellent clarity when used in a tie layer concentrate blend, and as a sealant layer, met all application requirements posed by seal through product contamination. It should also be noted that eliminating Nylon from the co-ex design allows for structure simplification, thereby offering the opportunity to utilize a broader range of co-ex equipment.

Hot dogs were packaged in the NOVA Chemicals designed film using MultiVac standard thermoforming equipment. Roger Kaas of Gehrke, Kaas & Associates, LLP confirmed the film exhibited excellent thermoforming characteristics, proving the ability to draw down successfully with no problem of corner thinning during the thermoforming process.

The finished product was then shipped to Clemson University to conduct rigorous simulated shipping and abuse tests. The co-extrusion packaging made using SURPASS FPs016-C resin passed all tests with flying colors, compared to real world control samples.

SURPASS FPs016-C resin is an LLDPE resin made using single-site catalyst and dual reactor technology that provides the converter / film producer ultimate versatility when designing co-ex structures for meat, cheese and poultry applications.

We invite you to contact your NOVA Chemicals account manager or technical service representative for more details regarding NOVA Chemicals' polyethylene film products, and see how we can be of service to you in helping provide cost-effective solutions to your packaging design needs.

SURPASS
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