

Stretching the capabilities of blown film lidding to better protect food

With 7-, 9-, and 11-layer coextrusion lines, Hosokawa Alpine is enabling high-barrier films that include LDPE, (m)LLDPE, HDPE, PA, EVOH, and Eastman Eastobond™ copolyester.

Multilayer films have a multitude of benefits.

Over the years, film manufacturing has evolved from monolayer to coextrusion. And there are many good reasons for this.

Multilayer films provide better barrier protection and more controlled respiration for food packaging lidding.

Today, brands have several options for multilayer lidding. For example, Hosokawa Alpine is a renowned international supplier of blown film lines, including blown film coextrusion lines with up to 11 layers. These lines can create films with optimized structures and improved physical properties.

With the addition of Eastman Eastobond™ copolyester as a sealant layer run on Hosokawa Alpine machinery, it's now even possible to switch to single-layer PET trays, improving both productivity and recyclability.

Creating the ideal seal

Traditional multilayer food contact lidding for some food contact applications requires a two-layer tray consisting of both polyethylene (PE) and polyethylene terephthalate (PET), which can increase costs and hinder recycling efforts. But with Eastman Eastobond™ 19412 copolyester as part of the sealing film, food packaging manufacturers can switch to single-layer PET trays.

That's because Eastobond 19412 acts as a universal sealant layer. It requires a lower heat-seal initiation temperature and adheres to monolayer PET trays of different compositions.

Eastobond 19412 is suitable for sealing technologies, including:

- Locked sealing
- Peelable sealing
- Reclosable sealing

Preserving sustainability

Eastobond 19412 has been cleared for use for food contact applications under European Union Commission Regulation (EU) No. 10/2011.

As a sustainable solution, Eastobond:

- Eliminates the need for PE lamination on the food tray, allowing brands to feature food packaging with fully recyclable trays
- Seals to monolayer PET trays of different compositions, eliminating the need for adhesives and their associated volatile organic compounds (VOCs)
- Enables lighter packaging due to removal of the PE layer; plastic films are also lighter than traditional plastic lids or packaging made with metals or glass

More than a seal—it's a deal.

Using Eastman Eastobond™ copolyester as part of a multilayer lidding film may provide cost-saving advantages also, including:

- Reduced cycle times on food packing lines due to lower seal initiation temperature
- Reduced energy usage
- Less industrial waste—all mono PET tray waste can be reground and reused
- Elimination of the secondary process of PE lamination on the PET tray



To find out how Eastobond can be processed on Hosokawa Alpine equipment, contact Hosokawa Alpine at plastics@alpine.hosokawa.com.



An example of multilayer lidding

LDPE

LDPE

HDPE

Tie 1

PA

EVOH

PA

Tie 2

Eastobond 19412

Bottom tray

Mono PET

Choosing lidding with Eastobond enables the use of a monolayer tray, increasing the recyclability of packaging.

To see how Eastman Eastobond™ copolyester can help you create the ideal seal, contact your Eastman representative.

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