

APPLICATION TEARDOWN

Stand-Up Pouch

LyondellBasell is advancing solutions in flexible packaging with a vertically integrated product portfolio for all multi-layered film applications.

Whether the contents are liquid, solid or powder, the stand-up pouch design offers a variety of benefits including resealability, package transparency and durability.

With a diverse portfolio of polyolefins, advanced polymers, additive masterbatches and color concentrates, LyondellBasell offers a complete packaging solution that can be customized to meet unique customer needs.

These innovative materials optimize performance, appearance and processability.



Advanced Performance



Improved Processing



Enhanced Appearance

Options For Pouch Design

Outside Film Components

- BOPP *Pro-fax* Homopolymer
- BOPE *Alathon* HDPE
- MDO-PE *Alathon* HDPE
- *Catalloy Adflex/ Adsyl*
- *Polybatch* DUL
- *Polybatch* ABVT

Extrusion Lamination

- *Petrothene* LDPE

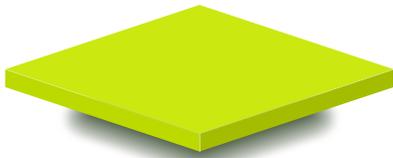
Inside Film Components

- *Petrothene* LLDPE and LDPE + *Polybatch**
- *Polybatch* BAR
- *Catalloy Adflex*
- *Plexar*
- *Toppyl*

**Polybatch* Slip, AB, AS, AMF, and White are a few additive examples that can enhance your packaging design.

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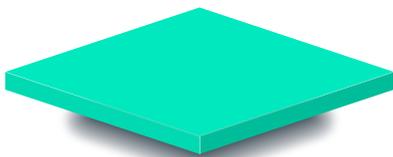
DESIGN SELECTION EXAMPLE



Outside Film Components

- *Alathon* HDPE + *Polybatch* ABVT

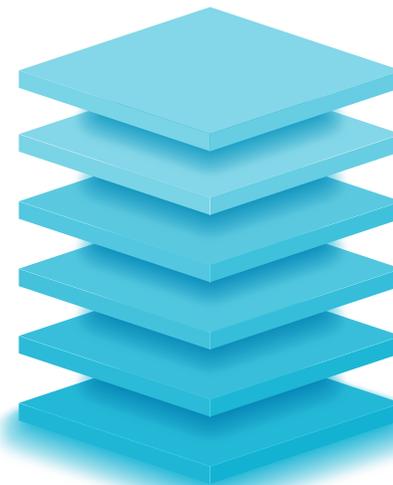
Using a high density polyethylene grade like *Alathon* provides an alternative to polyester (BOPET). Incorporating *Polybatch* ABVT, an anti-blocking masterbatch additive, can help reduce friction which allows for easier processing and handling.



Extrusion Lamination

- *Petrothene* LDPE

Petrothene is a low-density polyethylene resin formulated for high-speed extrusion coating applications. This resin can be drawn down to medium coating weights at high line speeds with minimum neck-in.



Inside Film Components

- *Petrothene* Superhexene LLDPE + *Polybatch**
- *Plexar*
- *Polybatch* BAR
- *Plexar*
- mLLDPE + *Polybatch**
- *Catalloy Adflex*

Petrothene provides pouch toughness with very high dart impact and tear strength. *Polybatch* additives, like absorbers or release agents, can also be included to further improve product performance. Lastly, our tie-layered adhesive called *Plexar* is used to help bond dissimilar polymers, bringing these layers together. Collectively, these multilayers enable a durable package with enhanced performance characteristics.

**Polybatch* has a comprehensive range of masterbatch concentrates applicable to a variety of needs.

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