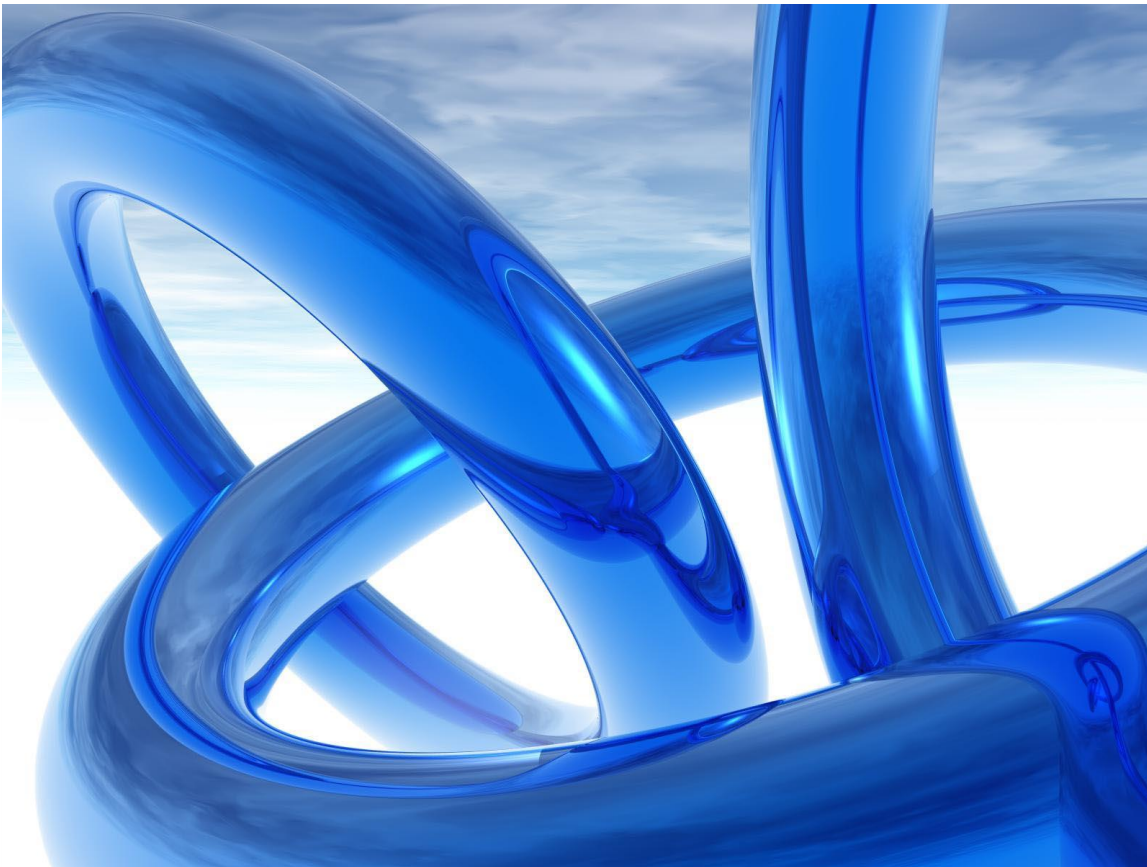

SynTear™



SynTear™ provides the look and feel of paper in a moisture-resistant, quiet, easy to tear film.

Summary

SynTear, a new Paper 2.0 additive technology produces synthetic paper that looks, feels and tears just like paper with the added benefits of moisture resistance and film processing ease. SynTear replaces coated paper and wax paper for butcher wrap, deli wrap, condiment/sweetener packets, personal care packets, snack bag pouches, gift and floral wrap, craft applications, concrete bags and more.



Product Overview

SynTear, like SynWrap, enables extrusion of single layer synthetic paper that can be as thin as 0.5 mils and can be produced with blown or cast film extrusion processes.

Besides eliminating the need for secondary lamination, SynTear offers excellent deadfold properties and good moisture barrier properties compared to wax paper. SynTear can be torn in either direction and tear strength can be adjusted via the let-down ratio. Compared to conventional paper food wraps, SynTear eliminates grease stains and there is no migration of chemicals and waxes into foods. SynTear is FDA compliant.

SynTear can be extruded with any color, effect or texture for a unique package design or it can be produced in white or kraft paper colors for a simple food or floral wrap. SynTear can also be combined with functional additives such as a moisture-absorbing desiccant to absorb excess humidity.

SynTear is recommended for use in conjunction with HDPE, LDPE and LLDPE films with Paper | 2.0 additive, but can also be used to increase tear properties in LLDPE and LDPE virgin films, in addition to creating a dramatically quieter-sounding tear in LLDPE and LDPE films.



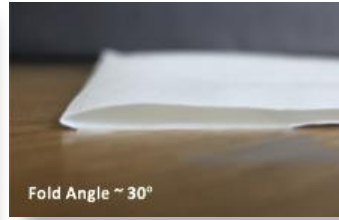
SynTear™ Dead Fold Properties

Folded sheets of HDPE, SynTear and regular copy paper:

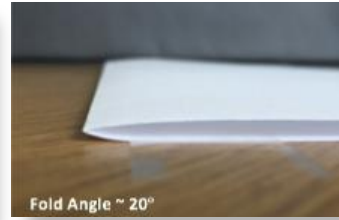
HDPE film



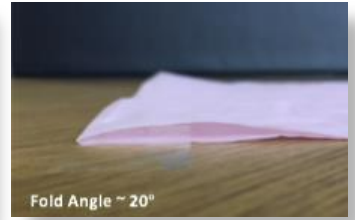
SynTear film 3.75 mils



Copy paper 3.75 mils



SynTear film 1.70 mils



Experimental:

- PE films prepared on Ampacet blown film extruder
- All were folded over and creased
- Photos taken after 5 minutes

Products/Codes:

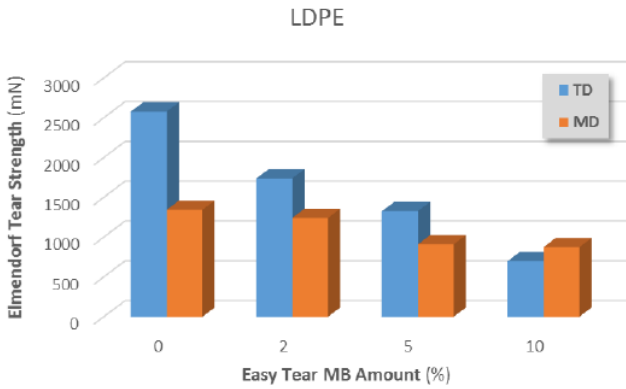
| Production Code | Description | Resin | LDR | FDA |
|-----------------|----------------------|-------|-------------|-----|
| 103805 | Paper 2.0 Additive | PE | 40.0% | Yes |
| 1000626-N | SynTear Additive | PE | 5.0% | Yes |
| 1000072-N | Desiccant Additive | PE | 1.0% – 2.0% | Yes |

Technical Specifications:

- Mono or Multilayer film processing (blown or cast)
- 0.5 mil and thicker film (enhanced rigidity with 4 mil greater)
- Custom colors and effects are available
- Can work with virgin low density, but best with Paper 2.0 additive technologies
- For enhanced matte effect add 1000041-N
- Does not improve tear in PP films

Effects of SynTear Additive on Films

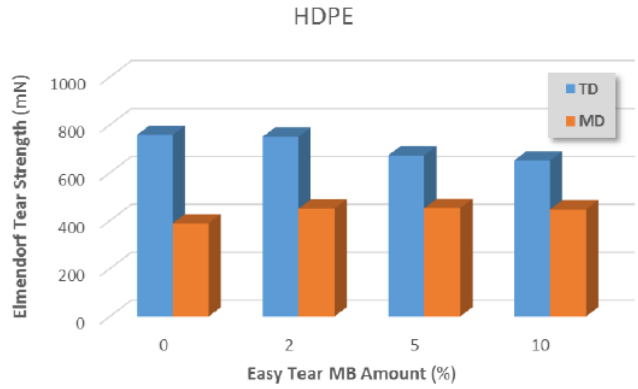
SynTear 1000626-N
Effects of SynTear Additive on **LDPE** film



2% LDR: TD 36% drop; MD 12% drop
5% LDR: TD 52% drop; MD 36% drop
10% LDR: TD 78% drop; MD 44% drop

Elmendorf Tear Test: ASTM D1922

SynTear 1000626-N
Effects of SynTear Additive on **HDPE** film

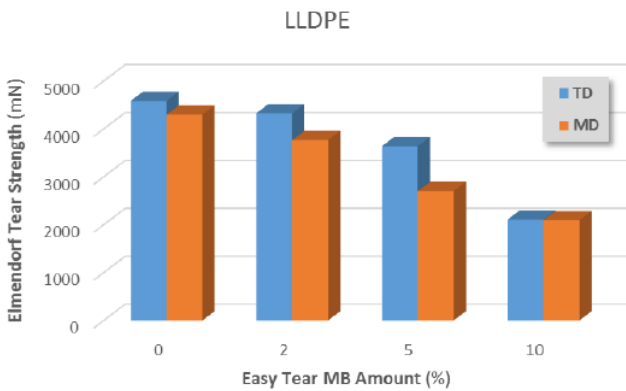


5% LDR: TD 7% drop; MD 0% drop
10% LDR: TD 8% drop; MD 0% drop

SynTear has no significant effect in HDPE films

Elmendorf Tear Test: ASTM D1922

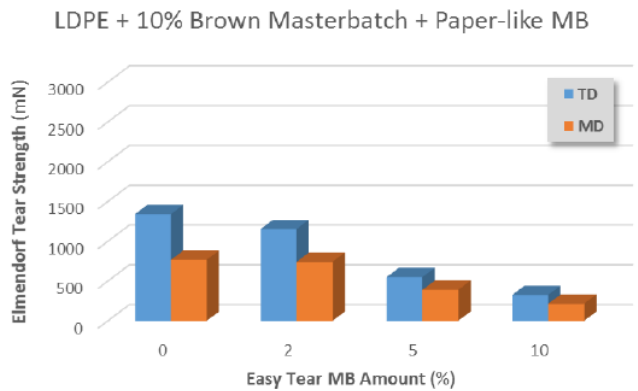
SynTear 1000626-N
Effects of SynTear Additive on **LLDPE** film



2% LDR: TD 5% drop; MD 12% drop
5% LDR: TD 19% drop; MD 39% drop
10% LDR: TD 53% drop; MD 51% drop

Elmendorf Tear Test: ASTM D1922

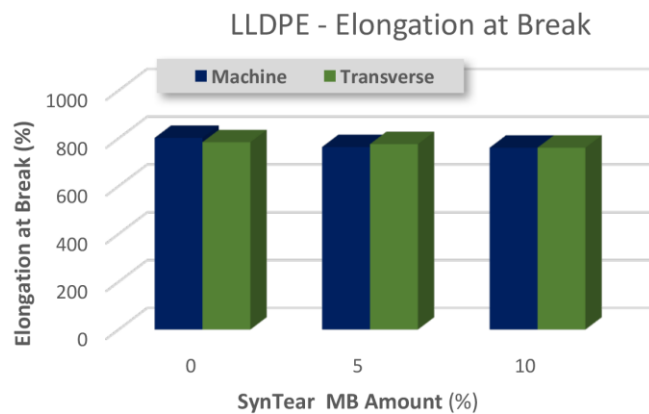
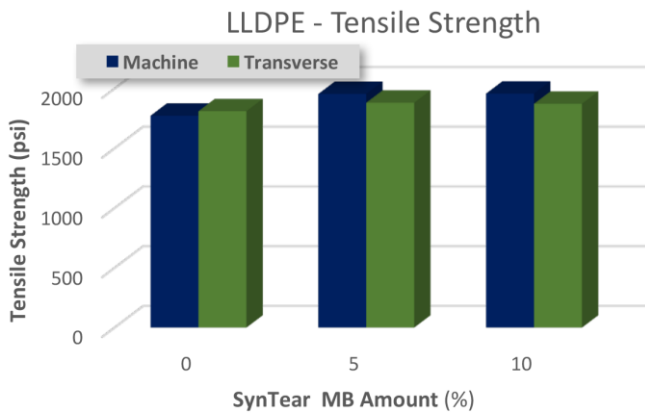
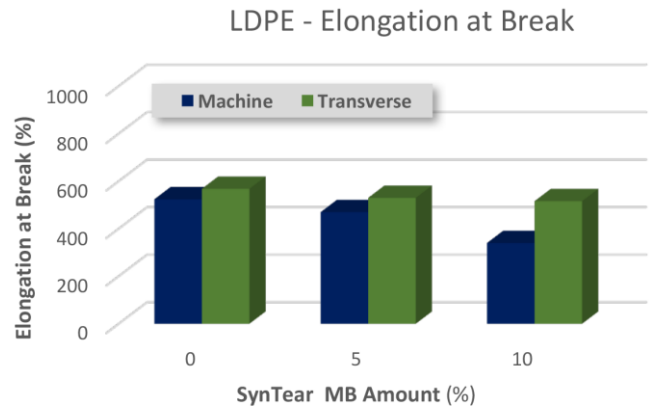
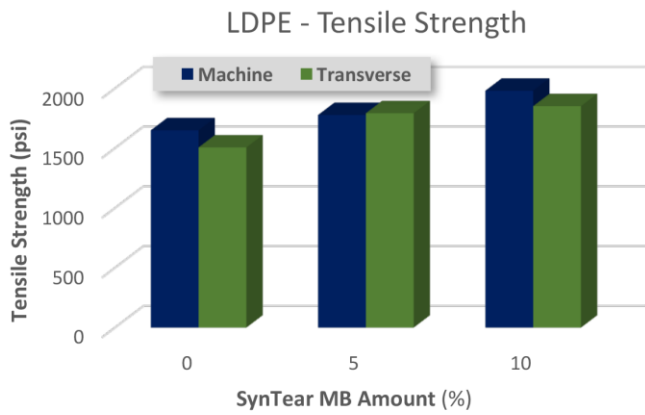
SynTear & SynWrap 1000626-N + 103805
Effects of SynTear Additive on **LDPE film** with ColorMB and Paper 2.0 MB



2% LDR: TD 16% drop; MD 0% drop
5% LDR: TD 19% drop; MD 60% drop
10% LDR: TD 80% drop; MD 75% drop

Elmendorf Tear Test: ASTM D1922

Effects of SynTear Additive on Tensile Properties



For more information on **SynTear**, its uses and complete Regulatory Status, contact your Ampacet Account Executive or visit www.ampacet.com.

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