

Brampton Engineering and Sustainable Packaging

Brampton Engineering (BE) has been promoting sustainable packaging with its technology for almost two decades. Since the introduction of our Streamlined Co extrusion Die (SCD®), we have equipped processors with the capability to produce co-extruded structures for flexible packaging that outperforms, costs less, and utilizes less materials and energy than the packaging they replace.

As the world leader in 7, 8, 9 and 10-layer co extrusion lines, our multilayer technology has advanced sustainability efforts for companies all over the world. As our technology developed and our SCD® die offered additional layer capabilities, our customers were able to take steps to reduce the cost of their packaging, improve its performance, and optimize the use of materials and energy required to produce it. Some examples are:

- *Develop films with better barrier properties, extending the shelf life of packaged foods.*
Improved packaging has dramatically reduced the amount of food spoilage in the distribution chain.
- *Eliminate manufacturing steps such as lamination, which require additional energy and materials.*
Multilayer extrusion makes it possible to replace laminated structures with co extruded ones in many applications.
- *Replace bulkier, heavier packaging materials such as metal, glass and cardboard with flexible packaging made from co-extruded films.*
Co-extruded flexible packaging significantly reduces the overall carbon footprint of the finished product, including transportation and distribution costs, damaged goods losses, etc.
- *Produce flatter films that perform better on packaging machines allowing faster speeds with less waste.*
Additional layers make it possible to co-extrude films with little or no curling, and improvements in bubble cooling, stabilization, collapsing, randomization, and automatic gauge control deliver flatter films.
- *Co-extrude films with specific layers dedicated for recycled materials.*
Extra layers make it possible to dedicate specific layers for recycled materials without compromising the performance of the structure.
- *Down gauge expensive sealant and tie layers by utilizing filler layers with more cost efficient materials.*
The addition of supplementary layers facilitates the use of thinner layers of specialty resins while using more economical resins for bulk.

Today, with the success of our **AquaFrost®** water quenched blown film, BE's technology continues to advance sustainable packaging options:

- Allows for the use of more cost efficient PA 6 instead of PA 6/66 in thermoformable films while improving optical properties and thermoformability.
- Permits the use of lower cost homopolymer instead of copolymer PP in outside layers while improving



optical properties and temperature resistance.

- Provides better mechanical properties than comparable cast films – opportunity for down gauging as well as using more cost effective LLDPE's instead of pricier metallocenes or plastomers.

Reduce waste

- Does not generate the edge bead trim of competitive cast films, which ends up in landfills, thus reducing material costs and waste significantly.
- Its improved bubble stability and web tracking enables processors to run “trimless” with excellent roll edges eliminating edge trim prior to winding.

BE's AquaFrost® technology is the clear choice for supporting sustainable packaging initiatives.

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