

PLA Foam Sheet Extrusion Line

Renewable, Compostable Alternative to PS Foam



Key Features:

- Bio-based, compostable material
- Innovative extruder design guarantees uniform melt temperature distribution
- Exceptional foam structure with 16:1 expansion ratio
- No license fee or running royalties

Applications:

- Food packaging
 - Meat trays
 - Fruit & vegetable trays
 - Clamshell food containers
 - Egg cartons
- Industrial packaging
 - Compostable impact protection for appliances
 - Medical packaging
 - Toys packaging

Macro's PLA Foam Extrusion Line is a tandem extruder system that produces expanded poly lactic acid sheet with 16:1 expansion ratio at output rates up to 300 kg/h.

Macro's advanced foaming technology enables processors to foam *biopolymer PLA* - one of the most challenging resin to foam. A proprietary new extruder design is used to address obstacles that processors face when foaming PLA, namely working around the material's low melt strength, melt crystallinity and narrow processing window. The result is uniform melt temperature distribution and reliable foaming.

The line is equipped with a sophisticated blowing agent injection system that ensures the right cell structure is created in the foam.

Along with the line, Macro provides the know-how to operate it; Macro supplies the complete PLA recipe and processing conditions along with process training, and stands behind the machinery with industry-leading after sales support.

As with all Macro machinery, the line is constructed using the latest technology, highest quality materials and superior workmanship.

Macro is actively developing new technologies for use with this extrusion line to expand the application range of foamed PLA.

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Specifications:

Layflat Width (mm)	1100
Sheet Thickness (mm)	1.2 – 5.0
Expansion Ratio	Up to 16:1
Density (g/cm ³)	0.07
Raw Materials	PLA
Die Diameter (mm)	105
Maximum Output* (Kg/h)	300
Primary Extruder Diameter (mm)	102
Secondary Extruder Diameter (mm)	114
External Air Ring	Yes
Internal Air Ring	Yes
Cooling/Sizing Drum Diameter/Length (mm)	368 / 2032
Winders	Two-spindle center driven
Maximum Roll Diameter (mm)	2000
Core Inner Diameter (mm)	305

* Maximum output will depend on many factors including, but not limited to, resin types, sheet thickness, and cooling temperatures.



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