

# Sheet Extrusion Technology

Proven Technologies for Value-Added Sheet Production



## Key Features:

- Wide range of melt cooling and annealing technologies to match process requirements
- Various winding types and upgrade options available including end-of-line automation
- Fully custom engineered systems to optimize process
- Robust build and simplified controls for years of trouble-free operation

## Applications:

- Technical Sheets
  - Lamination sheeting for reinforced glass and solar panels
- Thermoformed Sheets
  - In-line thermoformed sheeting for construction applications
- Foamed Sheets
  - Multilayer foam sheets with high barrier capabilities for food packaging applications
- Fabric-Reinforced Sheets
  - Heavy-duty sheets for industrial application like roofing membranes and liquids containment

Macro provides high technology sheet extrusion lines for a wide range of value-added applications.

With over 35 years experience in machinery design and processing knowledge, Macro's team of experts can deliver a extrusion system specifically tailored to match your production goals.

Macro is highly experienced with developing complex systems that require advanced processing requirements and high levels of automation. This experience has allowed Macro to develop a broad range of know-how that is leveraged on every project to ensure the right system is delivered.

Macro supplies complete turn-key installations using only the most advanced technologies, robust machinery and always is accompanied by processing support, including operator training and ongoing service and technical support.

## Capabilities

### Extrusion Technologies:

- Reincorporated Edge Trims, Start-Up Materials & Scrap
- Optimized Screw Design
- Vented Extruder Barrel
- Air/Water Cooled Temperature Zones

### Melt Cooling Technologies:

- Casting Roll
- 3-Roll Stack
- Water-Quenching Bath

### Annealing Technologies:

- Infrared Heated Stress-Relaxing Chamber
- Water Bath

### Winding Technologies:

- Stacked Sheets
- Large Diameter Rolls
- Rapid Index Turret Winder for Small Rolls
- Automatic Labeling
- Automatic Taping
- Roll Wrapping Systems

## Technical Sheets



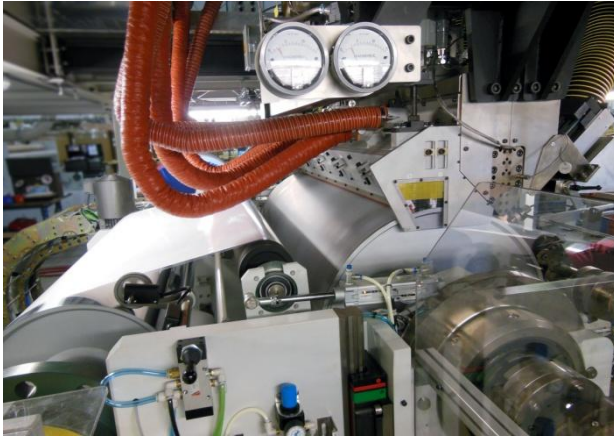
- Applications: Automotive, Building/Construction
- End Products: Laminating sheets for photovoltaic cells, laminating sheets for reinforced glass.
- Materials: LDPE, HDPE, PP, PVB, EVA, PS
- Optimized extrusion technology for extremely low shrink
- In-line embossing
- Zero scrap roll transfers

## Inline-Thermoformed Sheets



- Applications: Building/Construction
- End Products: Construction membranes
- Materials: LDPE, HDPE
- In-line shallow thermoforming with options for laminating web
- Rapid index turret winder for core-less rolls
- End-of-line Automation: Roll labeling and wrapping

## Foamed Sheets



- Applications: Food Packaging
- End Products: Thermoformed trays
- Materials: LDPE, PLA, PA, EVOH, PVdC
- Coextrusion up to 9-layers
- Inert gas foaming agent
- End-of-line Automation: Roll labeling and wrapping

## Fabric-Reinforced Sheets



- Applications: Building/Construction
- End Products: Roofing membranes
- Materials: TPO, PVC
- Rapid index turret winder for 'ready to use" small diameter, coreless rolls
- End-of-line Automation: Core loading, roll taping and unloading