



## How to Thermoform TPO

Thermoplastic Polyolefins

GLOBAL THERMOPLASTIC SOLUTIONS

Thermoplastic Polyolefins (TPO) are elastomer-modified materials developed specifically for thermoformable sheet extrusion.

TPOs can be formed using most oven designed, but, for maximum control and performance, those having ceramic or quartz elements with multiple control zones are recommended.

The forming of TPOs on fully-automatic, multi-station machines may require longer heating times in order to compensate for longer cooling cycles typical of TPO. If cycle time is a concern, the use of cooling fixtures may allow for faster cycles.

## General Thermoforming Start-Up Conditions for TPO

Sheet Temperature, °F	320-360
Tool Temperature, °F	170-190
Part Removal Temperature, °F	140-170
Minimum Vacuum, inches of Hg	25
Drying Temperature, °F (1-4 hrs.)	120-180*

\*Normally, drying is not necessary. However, drying at the above conditions may lead to a better-looking surface finish and optimal sheet performance

## TPO Thermoforming Best

Tool Mounting	Top Platen
Plug Assist Material	Syntactic Foam
Oven Elements	Ceramic or Quartz / Multi-Zoned
Vacuum Actuation	Bleed in as tool hits sheet
Tool Finish	Vapor Honed / Sand Blast
Vacuum Hole Size	#60 – drill bit
Environmental Conditions	Controlled – no drafts
Cycle Time & Warpage Reduction	Cooling Fixtures



## CUSTOM EXTRUSION SOLUTIONS

TPO | ABS | Acrylic | ASA | PC/ABS | Soft-touch

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