

WHERE SOLUTIONS ARE FORMED



Speed

We build our own tools and machines and extrude our own material, which means we can design and develop faster, fix production problems faster, and ensure you meet your deadlines.



Customization

We provide a broad array of manufacturing capabilities. Whether your part calls for design, post-production machining, finishing, tooling manufacture, assembly or packaging, we can handle all your needs on-site. We'll make all the components!



Quality

Quality is Global Thermoforming's most important attribute. We take pride in delivering the best quality in our industry. We are constantly striving to improve. At Global Thermoforming, quality is everyone's job.



Customer Experience

Once your product is delivered, we will be by your side until it is fully integrated with your manufacturing processes. If complications occur, we are available within 24 hours to get it right and have your systems up and running.



Raytheon

NISSAN

BRIDGESTONE

Gibson

BAE SYSTEMS

BOEING

**Rockwell
Collins**

MATERIALS AND TOLERANCES

Materials We Use

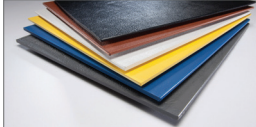
Thermoforming allows you the option to use a wide variety of materials. Each material has its own unique capabilities, advantages and tolerances. This information will help you begin the process of deciding which material is right for your next project.



THICK | THIN

HDPE or HMWPE (Polyethylene)

Excellent impact and chemical resistance. Good cold temperature properties. Dimensionally not as stable as other materials.



THICK | THIN

ABS (Acrylonitrile butadiene)

Very common material. Good stiffness and impact strength. Available in a wide variety of colors and several textures. Available in UL94-V0 grades. (Flame Retardant)
KYDEX | ROYALITE



THICK | THIN

PC (Polycarbonate)

Very high impact strength. Clear. High-temperature resistance.



THICK | THIN

PVC (Polyvinyl chloride)

Rigid material. Very good impact strength.



THICK | THIN

PP (Polypropylene)

Excellent chemical resistance. Rigid, with very good impact strength. Good at higher temperatures. But dimensionally not as stable as other materials, similar to HDPE.



THICK | THIN

HIPS (High Impact Polystyrene)

Low cost, forms easily. Available in many colors. More brittle than ABS.



THICK | THIN

PETG (Polyethylene Terephthalate Glycol)

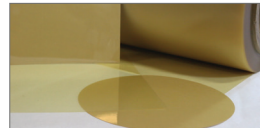
Clear, with excellent impact strength. Forms well.



THICK

TPO (Thermoplastic Olefin)

Outstanding impact properties. Available with a high gloss finish. Good for outdoors applications. More difficult to form, especially deep draw shapes.



THICK

PEI (Polyetherimide, Ultem)

Very high-temperature grade material. Autoclavable. Natural amber color.



THICK

Acrylic

Water clear and abrasion resistant material. Easily fabricated. Available in impact modified grades.
Many colors available.

PRIMEX
PLASTICS CORPORATION

SEKISUI

FUTUREX

CURBELL
CURBELL PLASTICS, INC.

 **Polymershapes**

 **Piedmont Plastics**
where solutions take shape

 **SPARTECH**

Laird Plastics
One Source - The Right Way®

THIN AND THICK MATERIAL

Tolerances

Over time, accepted tolerances become industry standard. But if you need better-than-standard tolerances, just let us know. We'd be happy to help. As mold and part dimensions increase in size, so must tolerances.

Thick Gauge Material Tolerances

Activity Tolerance

Guideline

Formed Measurements

+/- .020" | Additional .001 Per Inch Beyond 12"

Drilled Hole Diameters

+/- .005" | Holes Equal or Lesser than 1"

Drilled Hole Diameters

+/- .010" | Holes Greater Than 1" to 5"

Slots

+/- .010" | Slots Equal or Lesser Than 1" in Any Direction

Slots

+/- .020" | Slots Greater Than 1"

Assembly Tolerances

+/- .010" | Additional .005 Per Inch Beyond 12"

Thin Gauge Material Tolerances

Activity Tolerance

Guideline

Formed Measurements

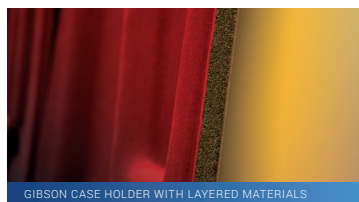
+/- .010" | Additional .001 Per Inch Beyond 12"

Die Cut Dimensions

+/- .010" | +/- .010" | Additional .001 Per Inch Beyond 12"



CNC TRIMMING AND FINISHING



GIBSON CASE HOLDER WITH LAYERED MATERIALS



GOO GOO CLUSTER PLASTIC INSERT

THERMOFORMING | SECONDARY SERVICES | TOOLING

Our Capabilities

We can boast quality among the best in the industry. Our SPEC and other quality programs mean our parts live up to your standards. In fact, we are a preferred supplier to Motorola and Snap-on Tools among many others. **Quality is our most important attribute.**

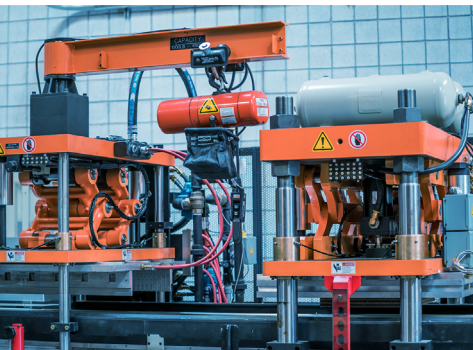


BRIDGESTONE | GIBSON GUITARS | NISSAN | BOEING

Thick Gauge

We have capabilities of forming up to 1" thick. We've formed all thermoplastics in our industry and have helped our customers form their ideas into solutions they never dreamed of.

Heavy gauge thermoforming is a process that transforms a flat sheet of plastic into a functional form. It is a low pressure process. The tools are simpler and less expensive than other molding processes.



GIGI'S CUPCAKES | SCOTTS MIRACLE GRO | GOO GOO CLUSTERS

Thin Gauge

Thin-gauge thermoforming is primarily the manufacturing of disposable cups, containers, lids, trays, blisters, clamshells, and other products for the food, medical, and general retail industries.

Our thin gauge thermoforming expertise has been applied across a variety of industries, including retail, medical, aerospace, and food.



CNC TRIMMING | PRINTING | LABELING | PAINTING

Secondary Operations

We provide a variety of secondary services, including CNC trimming, assembly, printing, painting, and drape forming. Because thermoforming begins with a relatively expensive finished sheet of plastic, minimizing scrap is an important step in containing costs. Though good part design can reduce trim, some trimming will be necessary.

We offer a wide range of secondary options for finishing and finalizing your products.



WOOD | 3D PRINTED | EPOXY/POLYURETHANE PROTOTYPES | ALUMINUM

In-House Mold Materials

Thermoforming uses relatively low temperatures and pressures. Because of this, a variety of materials can be used for making thermoforming molds. Molds can be made out of wood, plaster, plastic, aluminum, steel, sprayed metal, 3D printed or layered metal. The choice of material depends on the number of production parts required and their quality.

TYPES OF THERMOFORMING MACHINES

In-house Equipment and Machinery

In-house capabilities feature multiple of the following machines.



MAAC | FORMS UP TO 4'X5' - 11'X7'

Rotary Thermoforming Machine

Rotary thermoforming equipment can introduce even greater productivity in forming operations by arranging three or four workstations around a central area. Rotary machines with five stations are sometimes used but are far less common than three- and four-station machines. Only one mold and one forming station are needed on a rotary machine.



SENCORP 2500 | SENCORP 2500 ULTRA

In-line, Roll-fed Thermoforming Machine

A continuous web of material is fed from a roll and then clamped into a chain conveyor. The web moves through a bank of heaters, gets formed, and is moved out. The part is trimmed during cooling.



THERMWOOD | CUTTING UP TO 10' X 5'

5 Axis CNC Routers

Our Thermwood 5-axis CNC Routers are specifically developed for three-dimensional machining and holding tight tolerances. A computer numerical control (CNC) router is a computer-controlled machine that can hold much tighter and more consistent tolerances than held by hand routers.



BROWN | SIZES RANGING FROM 1'X1' - 11'X7'

Shuttle Thermoforming Machine

Here, the sheet is clamped into a movable frame. The frame is located to the side of the stationary heaters. The sheet is then moved into the heater; when it reaches forming temperature, the sheet is moved back to the loading station and pressed into contact with the mold. The part is formed and cooled. The part is ejected after the mold is retracted.

OUR PROCESS

Quality and Consistency

Quality is Global Thermoforming's most important attribute. We take pride in delivering the best quality in our industry. We are constantly striving to improve. At Global Thermoforming, quality is everyone's job!

01

Initial Meeting or Call

Welcome! We'd like to hear all about your products and the vision you have in mind. We pride ourselves in having a great sales team that will help you throughout the process of your entire project. Our sales team works closely with our production team to make sure we hit our lead times and produce the highest quality parts in our field.

02

Design and Engineering

Design & Engineering are very important in thermoforming! We take your vision and try to improve it by reducing costs, improving manufacturability, and adding value to your end customer. We have over 50+ years of combined experience on our engineering team.

03

Prototyping

Rapid Prototyping! As soon as your design is completed and approved, we can get you prototypes in as little as 2 days! Most companies we've worked with over the years have found prototyping is vital in the process to launch a new product. We offer a variety of mold options, all depending on your particular project.

04

Production – High or Low Volume

We have state of the art equipment! From high speed "inline" thermoformers along with 3-station rotary machines that give us high volume capability. Our smaller shuttle machines allow for lower volume projects.

05

Lead Times

Because accurate and timely information is vital in any business strategy, we make sure our customer's priorities are put first! Typical production lead times in our industry can vary from 4 – 10 weeks pending on the particular project.

06

Final Product

The duration from prototype approval to final product delivery varies anywhere from 2-14 weeks, dependent on the scope of work and complexity of the part. No solution is out of reach; your finished product will be beautiful, high quality, and completed with speed and efficiency.

ONGOING SUPPORT

Customer Experience

At Global Thermoforming, we stay involved through the entire process. Once your product is delivered, we will be by your side until it is fully integrated with your manufacturing processes. If complications occur, we are available within 24 hours to get it right and have your systems up and running. Our goal is to deliver products with speed, quality, and customer-centric experiences at the forefront.

Let us exceed your expectations.

YOUR THERMOFORMING EXPERTS

Let Us Exceed Your Expectations

We offer a full range of concept development to production services for small-run to high-volume projects. Recognized for our close tolerance forming and trimming capabilities, we fulfill your quality requirements in both thin and heavy gauge materials at competitive pricing.



Design and Prototyping



Custom Tooling



Thermoforming



CNC Trimming



Secondary Services

Measurement and
Quality Control

Packaging



Shipping

APPLICATION OPPORTUNITIES

Industries We Serve

The ability to produce large parts with thin walls in a variety of shapes has led to the use of thermoforming in many diverse applications, including:

Aerospace
ComponentsMedical
ComponentsBath & Shower
Furnishings

Pools & Spas

Recreational
Vehicles
ComponentsSidings &
WindowsConsumer
ProductsAppliances and
HousewaresAutomotive
ComponentsMarine
Components

Lawn & Garden

Agricultural
ComponentsHVAC
ComponentsPackaging
Disposable Cups,
Containers, Lids,
Blisters, Clams

WHERE SOLUTIONS
ARE FORMED



Whatever your manufacturing needs may be,
Global Thermoforming can put engineering,
design & manufacturing expertise to work to
create quality products for you.

TEMPE LOCATION

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Tempe, AZ 85284

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F: 480-753-5681

NASHVILLE LOCATION

1631 Corporate Place

LaVergne, TN 37086

P: 615-641-7000

F: 615-641-7076

GET A QUOTE TODAY!



Global Thermoforming recycles 100% of recyclable
materials. If you need help with recycling plastic
waste, please contact us.

Member of The AZ Green Tier Program.