MEGANITE®

TECHNICAL BULLETINS

GENERAL THERMOFORMING INFORMATION

DOCUMENT PURPOSE

This document offers general information about thermoforming. Use this as a general overview about surface behavior, thermoforming techniques, and preparation suggestions. This document is not intended to replace the Professional's review and practice on actual sheets. Actual result may vary due to variations in designs, equipment, material behaviors, fabrication techniques and experience, and more. Thermoforming is considered an advanced fabrication trade. It's the Professional's responsibility to assure the best performance of thermoforming. Having proper training, right equipment and certain amount of experience are highly recommended for thermoforming projects.

A SAMPLE GUIDE TO OVEN SETTING & BENDING INNER RADIUS

Series	NO.	Direct Heat Double Plate Oven	Indirect Heat Conventional Fan Oven	Common Radius
Solid	0XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 70mm (≥ 2-3/4")
Solid	033T	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 15mm (≥ 1/2")
AcryMed	033Z	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 100mm (≥ 3-15/16")
Mist	1XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 70mm (≥ 2-3/4")
	2XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 70mm (≥ 2-3/4")
	3XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 70mm (≥ 2-3/4")
Stone	5XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 100mm (≥ 3-15/16")
Granite	6XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 135mm (≥ 5-1/3")
	7XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 135mm (≥ 5-1/3")
Boulder	8XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 150mm (≥ 5-15/16")
Breccia	9XX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 150mm (≥ 5-15/16")
All B-Series	Ending in B	Not Recommended	Not Recommended	Not Recommended
Shell	4XX	Not Recommended	Not Recommended	Not Recommended
Movement I	MXXX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 110mm (≥ 3-15/16")

Movement II	MXXX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 135mm (≥ 5-1/3”)
Movement III	MXXX	150-160°C, (302-320°F) 10-15 Mins	150-160°C, (302-320°F) 10-20 Mins	≥ 170mm (≥ 6-15/16”) under certain condition

Notes:

- Heating temperature higher than 190°C (320°F) is not recommended.
- Heating time longer than 30 min is not recommended.
- Every oven is different. Results can vary. PRACTICE ON PARTIAL OF SHEET IS RECOMMENDED BEFORE CARRYING OUT THERMOFORMING ON FULL SHEET.
- Discoloration is possible during thermoforming. Some whitening is expected on tight radius (80 mm or less) of dark and vivid colors.
- Definition of Movement I: M005, M007, M008, M009, M020, M040
  Definition of Movement II: M021, M022, M023, M024, M038, M039
  Definition of Movement III: M002, M031, M032, M036, M037
- Medium & large chips in series of Granite, Boulder, Gemstone, Breccia and Movement III may come off during thermoforming.
- Veining in Movement series may be stretched during thermoforming.
- Meganite does not warranty the condition of Meganite Solid Surfaces while being thermoformed or such material that is unsuccessfully thermoformed. However, when the material is successfully thermoformed and subsequently incorporated into a finished assembly, it carries the same warranty as other Meganite Solid Surfaces products.

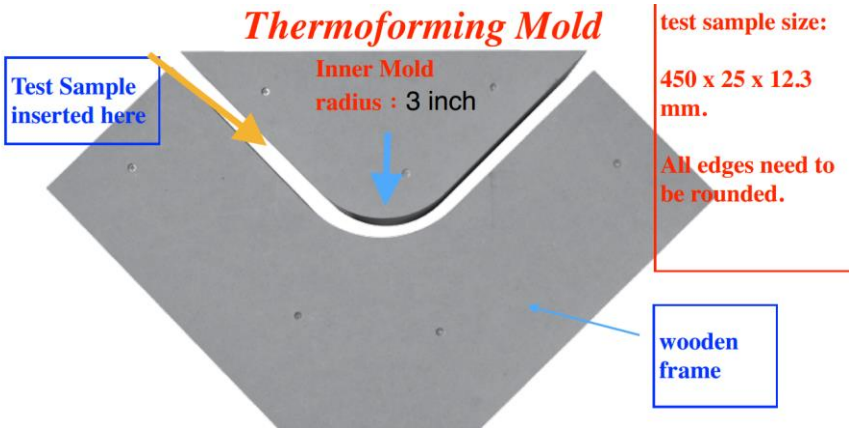
LEARN YOUR OVEN & DO A SAMPLE TEST BEFORE STARTING ANY PROJECT

Solid Color

Large Chip Color


033T Flexy White

SEE THE THERMOFORMING TESTING MOLD, WHICH IS MADE WITH MDF OR PLYWOOD.



We highly recommend you spend some time to learn how your oven performs. Not all ovens are designed the same. The two most common designs are direct heat and indirect heat. A direct heat oven is generally double stainless steel plated and the material is sandwiched between the two plates. An indirect heat oven is similar to a conventional oven with a fan. In general, a direct heat oven heats the material faster and more even. Indirect heat oven is more common due to the cost of the oven.

We recommend you to learn how MEGANITE materials can be heated with a small test strip. The strip can be 100 x 300 x 12 mm or similar. First, preheat your oven to the desired temperature. Then, put the solid surface strip flat in the oven until it is soft throughout. Lastly, bend the material into shapes in above photo. If the material is hard to bend, generally it is because it has not been softened all the way through. Thus, more heat or more heating time could be needed. Follow and repeat above steps until you find the desired bending time and temperature combination. It is extremely important to check the heated and non-heated material for discoloration. Simply place a heated and a non-heated material next to see each other. Sand them at the same time to the desired finish (generally matte or gloss). After sanding, if you can visually tell a difference under normal indoor lighting, then adjustments on heat, duration, heat source distances, and/or other technique is needed.

Darker Colors and Bright Colors

Please be aware when darker colors and bright colors with and without chips can have more visible white stretch marks. This is not a material bending issue. It is generally because the material is bent too fast or not heart through enough.

IF YOU HAVE QUESTIONS, PLEASE CONTACT MEGANITE SOLID SURFACE REPRESENTATIVES, AUTHORIZED FABRICATORS, DISTRIBUTORS OR EMAIL US AT INFO@MEGANITE.COM.

ALL TECHNICAL BULLETINS CAN BE FOUND @ WWW.MEGANITE.COM