

# 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. 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. 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<br>Double Plate Oven     | Indirect Heat<br>Conventional Fan Oven | Common Radius            |
|--------------|-------------------|--------------------------------------|--|--------------------------|
| Solid        | 0XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 70mm<br>(≥ 2-3/4")     |
| AcryMed      | 033Z              | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 100mm<br>(≥ 3-15/16")  |
| Solid        | 033T              | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 15mm<br>(≥ 1/2")       |
| Mist         | 1XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 70mm<br>(≥ 2-3/4")     |
|              | 2XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 70mm<br>(≥ 2-3/4")     |
|              | 3XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 70mm<br>(≥ 2-3/4")     |
| Stone        | 5XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 100mm<br>(≥ 13-15-16") |
| Granite      | 6XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 135mm<br>(≥ 5-1/3")    |
|              | 7XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 135mm<br>(≥ 5-1/3")    |
| Boulder      | 8XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 150mm<br>(≥ 5-15/16")  |
| Breccia      | 9XX               | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 150mm<br>(≥ 5-15/16")  |
| All B-Series | Ending in B       | Not Recommended                      | Not Recommended                        | Not Recommended          |
| Shell        | 4XX               | Not Recommended                      | Not Recommended                        | Not Recommended          |
| Movement     | M005 M007<br>M009 | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 135mm<br>(≥ 5-1/3")    |
| Terrazzo     | TTXXX             | 150-160°C, (302-320°F)<br>10-15 Mins | 150-160°C, (302-320°F)<br>10-20 Mins   | ≥ 150mm<br>(≥ 5-15/16")  |

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### 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. Discoloration is possible.
- For better performance, please contact with your Meganite sales.
- 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.

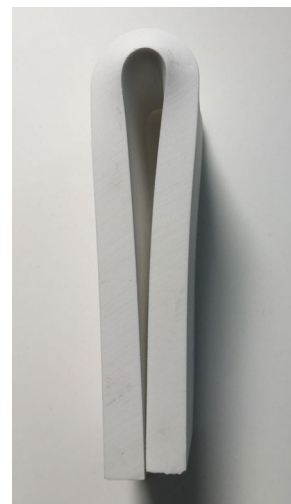
### LEARN YOUR OVEN & DO A SAMPLE TEST BEFORE STARTING ANY PROJECT



Solid Color



Large Chip Color



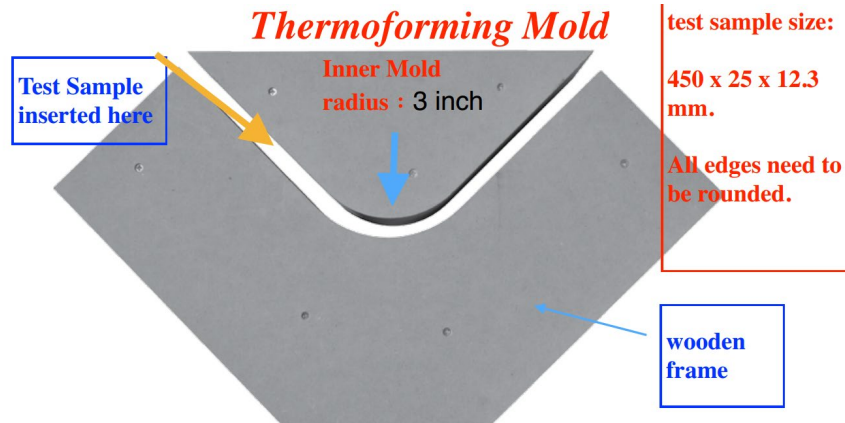
033T Flexy White

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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 heated through enough.

IF YOU HAVE QUESTIONS, PLEASE CONTACT MEGANITE SOLID SURFACE REPRESENTATIVES, AUTHORIZED FABRICATORS, DISTRIBUTORS OR EMAIL US AT [INFO@MEGANITE.COM](mailto:INFO@MEGANITE.COM).

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ALL TECHNICAL BULLETINS CAN BE FOUND @ [WWW.MEGANITE.COM](http://WWW.MEGANITE.COM)