



SOLID SURFACING BY FORMICA GROUP

THERMOFORMING ACRYLIC TECHNICAL BRIEF

INTRODUCTION

Thermoforming Formica Solid Surfacing involves heating the material until it is pliable, bending to a desired shape, allowing it to cool and hold its shape.

This Technical Brief recommends methods and gives specific guidelines to successfully thermoform acrylic product. Formica Corporation does not express or imply any warranty or suitability of equipment that may be used in the thermoforming process.

Additionally, Formica Corporation is unable to control or regulate an individual fabricator's adherence to the recommended methods listed herein. Consequently, Formica Corporation does not warrant the condition of Formica Solid Surfacing which being thermoformed or such material that is unsuccessfully thermoformed. However, when the material is successfully and successfully incorporated into a finished assembly, it has the same warranty as other Formica Solid Surfacing installations.

Formica Corporation recommends that only fabricators who have experience with the techniques, methods and equipment described in this guide should perform thermoforming.

SAFETY PRACTICES

When working with Formica Solid Surfacing, Formica Corporation recommends that you follow the standard safe working practices described in this technical brief. Because thermoforming involves working with equipment and materials that are extremely hot, gloves, clothing and goggles that can withstand high temperatures should be worn.

THERMOFORMING PROCEDURES

To thermoform acrylic Formica Solid Surfacing, follow the steps in this section.

1. Set up mold clamps and have all tools available
2. Preheat the oven and maintain a consistent product temperature window between 275°F and 325°F. Keep oven below 400°F. Lower temperature may crack and whiten surface. Higher temperatures may blister, whiten or crack. Heat times will vary depending on oven size, oven type and material size.
Refer to the standard Solid Surfacing by Formica group / Thermoforming technical brief for Heating equipment and molds.
3. Cut strips larger than finished size requirements.
4. Heat the strips until they are uniformly hot.

*NOTE: USA made acrylic Formica Solid Surfacing can bend to a minimum of a **6in radius***

*China made acrylic Formica Solid Surfacing with polyester particles can bend to a minimum of a **10in radius***

Size of Material	Time*
Up to 2 square feet	15 minutes
Over 2 square feet	30 minutes

*Approximate time in hot air/convection oven with 15kw duct heater, 1,400CFM blower and 64 cubic feet of cavity space.

5. Remove from oven once it has achieved desired temperature and has become pliable. You have about 2 to 3 minutes to work before it becomes too stiff. Immediately begin bending the heated Solid Surface over the appropriate mold, taking 15 to 20 seconds to induce the bend. If the bend is induced too quickly, the product will crack, whiten or become too brittle.

6. Clamp in mold to allow a cool down to at least 170°F. Depending on the mold size, the piece size and the room temperature this process will take from 15 to 60 minutes. Gradual cooling works best.