

## PRACTICAL INFORMATION:

# ORACAL® 8800 PVC Cast Translucent Thermoforming Instructions

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### SUBSTRATE PREPARATION & FILM APPLICATION

- Prior to applying the ORACAL 8800 film, be sure that the substrate surface is properly cleaned according to the manufacturer's recommendations.
  - Never use isopropyl alcohol to clean polycarbonate or acrylic.
- Apply the ORACAL 8800 film using a wet application method or a dry application method through a roll laminator.
  - When using a wet application method, the application fluid must be thoroughly dried after applying film, allowing the adhesive to thoroughly anchor to the substrate.
    - Failure to do so may result in the formation of air bubbles in the heating process. Recommendations for drying are as follows:
      - One layer of film: Dry in an oven for approximately two hours at 170°F, or one to two days on a rack in ambient temperature of at least 70°F.
      - Two layers of film: Dry in an oven for minimally four hours at 170°F or three to four days on a rack in ambient temperature of at least 70°F.
  - If the film was applied dry using a roll laminator, allow at least eight hours of acclimation time to allow the adhesive to properly anchor to the substrate.

### THERMOFORMING INFORMATION

- To ensure that equipment and materials are working cohesively, users must fabricate a test face prior to full production.
- The recommended temperature is 380° F or less at a maximum exposure time of 8 minutes.
  - However, due to variances in equipment, it is vital to check the recommended heat ranges of your specific hardware.
- On sheets that are greater than 0.176" thick, double heaters are required.
  - Excessive heat may cause components to become unbalanced, thus leading to such complications as reduced gloss of surface, color degradation, alterations in polycarbonate or acrylic and premature failures.

To monitor heat effectively, ORAFOL recommends using heat-sensitive temperature tabs in the production process. Contact your equipment manufacturer for more information on this product.

### **If hand cutting and weeding is necessary after face is formed, follow these instructions to ensure proper performance:**

1. To make a pattern on the flat areas of the face, use a pounce wheel and dust for the best results. The use of carbon paper or marking pens may leave permanent marks on the film.
2. When cutting on embossed or debossed letters, make sure to cut on either the flat areas of the letter or at the beginning and halfway through a return portion of the letter.
3. Avoid overcuts at graphic intersections such as the counter forms / returns on letters. Overcuts can lead to light intrusion once the face is backlit.
4. When weeding the film, use short, slight jerks for best results. Pull vinyl away from substrate at 45 degrees, it may be easier to use slight heat from a heat gun before weeding the film.

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### DISTORTION-CUT GRAPHICS

Distortion-cut graphics are applied and formed in virtually the same manner as distortion-screened faces, including using the same registration procedure, with only minor differences as follows:

- For second surface application, cut the graphics in reverse.
- For flat thermoformed faces where copy only will be applied, the graphics should be applied after the faces are formed, if possible.

ORACAL 8860 & 8830 Diffusing Films may be used with distortion-cut graphics

### MOLDS

Male molds should be used for first-surface applied graphics, while female molds should be used for second-surface applied graphics. When applying second-surface graphics, it is important to always cut graphics in reverse.

*Note: For best results, avoid film contact with the surface of the mold during the heating process. If this is not possible, contour cut the graphic to the mold to reduce the instance of film distortion.*

### SAFETY CONCERNS

To obtain Article Information & SDS sheets for ORAFOL products, please visit [www.orafol.com/en/americas/](http://www.orafol.com/en/americas/) or call ORAFOL Product Support at (888-672-2251). Always consult the manufacturer's labels and recommendations prior to selecting polycarbonate and acrylic substrates. Safety Data Sheet (SDS) are provided for important safety, health and environmental information.

### GENERAL INFORMATION

The information stated below is based upon our knowledge and practical experience. This data is intended only as a source of information, and is given without guarantee and does not constitute a warranty. Due to the wide variety of possible uses and applications, customers should independently determine the suitability of this material for their specific purpose prior to use or call ORAFOL Americas for more specific information.



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