

# DOUGLAS and STURGES

## Ingredients for ART

### **VARAFORM INSTRUCTIONS**

#### ABOUT THE MATERIAL

Vara-Form is an open-weave cotton fabric coated with a high density thermoplastic resin. This unique material is softened in water heated to 160° F (71° C) prior to application. When use of water is impractical due to size of the working area, an industrial heat gun may be used to soften the material. Vara-form softens in 30 seconds and provides 2-4 minutes in working time.

PREPARATION: Immerse the material. Insert Vara-form material vertically into 160° F (71° C) water. Keep the material under water until air bubbles cease to rise. Vara-form will soften in 30 seconds. Vara-form should not be kept in the water longer than 30 minutes. If multiple layers are appropriate, pre-form in several layers, aligning the perforations to either maximize or minimize porosity. Spot-dip and pinch to weld. Set aside for later use. Once material is removed from the water, it should be allowed to drain so that it becomes cool to the touch and ready to apply. Allow to drain 10-15 seconds before applying .

APPLICATION: It is important to minimize the deforming of the material during application. When using multiple layers, the material should be pushed with firm but minimum pressure to allow each layer to lie flat on top of the previous layer, providing the maximum amount of interlaminar bonding.

MOLD: Once the material has been removed from the water, you have approximately 3 minutes of working time before it starts to set. During that time, the material may be folded, tucked, stretched or notched to achieve maximum contouring. Mold as you use each piece. Work steadily rather than rapidly. If Vara-form cools too fast, or if you wish to remold a specific area, apply heat to the area with a 1000-watt portable hair dryer until the material is pliable. Smoothing the material will not compromise porosity. If less porosity is desired the material may be rubbed while it is soft resulting in plastic flow and closing of the perforations.

SETTING: Setting time for Vara-Form depends upon the thickness, the uniformity of heat exposure and room air temperature. A 3-layer section will set in 3-5 minutes at an average room temperature. Rigidity will be achieved after 10 minutes. Maximum strength of a thick section is attained in 30 minutes.

HOW MUCH TO USE: The number of layers needed to create Vara-Form scenery, jewelry, face masks, costume interiors or puppet heads may require experimentation. Adequate strength may usually be achieved with 1-2 layers. Areas requiring extra rigidity should be reinforced with splints and total 3-5 layers.

POST-APPLICATION Remolding To remold any section of the Vara-Form material, soften the area by carefully applying heat with a 1000-watt portable hair dryer. As soon as the material has softened, it is ready for remolding.

REPAIR Soften the area to be repaired as described for remolding, then apply a new piece of heated Vara-Form to the softened area and rub gently around the edges to maximize bonding. Rough spots may be smoothed by gently pressing after the material has been softened.

RE-USE Vara-Form single layers may be re-used 2-3 times without compromising the thermoplastic characteristics. If Vara-Form has been heated but not used, it can be cooled while flat and used again.

COMBINED WITH OTHER MATERIALS Epoxies that will stick to the Vara-Form fabric may be used to fill in perforations to give a smooth surface, if desired. Vara-Form will accept a variety of coatings and paints. Small pieces should be used for experimentation to insure that the projects desired outcome is achieved.

PRECAUTIONS Exposure of Vara-Form to high temperatures should be avoided, since heat in excess of 125° F may soften the material. Vara-Form meets the requirements of the Flammable Fabrics Act. Although it resists burning, once ignited it will burn due to the use of a cotton carrier. Vara-Form may be cleaned by using a damp, not wet sponge.