Fabricating Decorative Mica Plate

**Cutting:**
Use of a heavy duty shearing knife is recommended.

**Surface Preparation:**
The plate as supplied is normally milled (sanded) to reduce the thickness variations. Before applying a varnish coating, lightly sand the plate to smooth the surface.

**Surface Coatings:**
Usually a clear coating is applied to the surfaces. Care should be taken to select a varnish which is UV light stabilized to prevent yellowing. Exterior use requires careful selection of waterproof finish.

**Molding:**
If desired, the plate is moldable. This requires that the material be heated to its moldable (flexible) state. This can be done on a hotplate, or in an oven at a temperature of approx. 250-300°F. Time needed is thirty seconds to one minute, or until material is pliable. Overheating will adversely affect moldability. Form or roll into desired shape while still hot. Once the mica plate has cooled, it will retain its shape. If excessive heat has not been applied in the first heat-up, additional heating will re-soften the plate, thus allowing more forming and fitting to the desired shape.

Careful use of a heat gun (or hair dryer) may be used to heat the material to its moldable form. Use of molds or forms to help shape the mica to the curvatures desired is recommended.

**Limits of Use:**
Mica makes up 80 - 90% of the plate content and is inorganic in nature & stable at temperatures up to 1100°F. However, the flakes are bonded with organic resins which will burn when exposed to flame, discolor and embrittle when exposed to heat in the 300°F+ range.

Use natural mica sheets (100% mica) for high temperature applications. Natural mica is available in small size sheets (up to 6" x 8" and much thinner). These have no organic content, will not burn, and are transparent, resembling tinted glass, such as that used in woodstove windows. However, the esthetic qualities of the organically bonded plate are lost.