

# LUMINAR PRODUCTS

*Advanced materials for glass hot casting, slumping and fusing.*

## ***USER GUIDE TO ZIRCAR ART GLASS PRODUCTS***

### ***INTRODUCTION:***

LUMINAR Mold Mix 6 is a refractory-molding compound designed to allow replication of three-dimensional objects in glass. It comes as a paste, which is applied to a suitably prepared pattern and hardens on drying. Properly prepared molds of Mold Mix 6 will resolve the finest details and possess good strength. However, it remains sufficiently friable to permit easy removal after annealing. Mold Mix 6 is highly resistant to reaction with hot glass and gives the fired work a high quality surface free of hazing common to investment type molds. Mold Mix 6 may be used for hot casting, kiln casting methods and slumping; all with excellent results. The greatest advantage of Mold Mix 6 is its ease of use and this manual will show you how to use it most effectively.

### ***PATTERN PREPARATION:***

Molds may be made from a wide variety of objects, known as patterns. A pattern is the original object from which all replicas are made. Patterns may be made from plastic materials such as plasticene or clay, or they may be made of rigid materials like wood and plaster. There are many good books on pattern making and the type you choose to use with Mold Mix 6 is a matter of personal preference. For a pattern to work well with Mold Mix 6, it must have no porosity. This means that patterns of wood or plaster must be sealed, preferably with shellac. Paints will work, but the film thickness of most paints will obscure fine surface detail. Unfired clay is the least successful of all pattern materials, as it will leave a residue in the mold. Waxes are excellent for use with Mold Mix 6 as pattern materials and require no special preparation. While anything may be modeled readily in waxes, the lost wax process is their highest usefulness.

### ***PARTING AGENTS:***

Mold Mix 6 will adhere quite firmly to surfaces, which have not been treated with a parting agent. Several common parting agents have been shown to work well. The first is PAM, a parting agent usually used in the kitchen. It must be applied sparingly as it will ruin the mold surface in heavy applications. Others are petroleum jelly, which in thin application gives good results as well as a light coat of dish soap.

### ***MOLD MIX WITH MOLD MIX 6:***

After the pattern has been prepared and given a coat of parting agent, it is ready for application of Mold Mix 6. Initially a thin coat of Mold Mix 6, which has been diluted 35wt% with water, should be applied with a supple nylon brush. The first coat with diluted material will assure that all fine detail is resolved. Drying of the Mold Mix 6 should be complete between coats. Drying may be accelerated by uniform heating or with an appropriate pattern a microwave oven may be used. After the first coat is dry, build up the mold with undiluted Mold Mix 6 to a thickness appropriate to the size of the work. 3/8" to 5/8" is usually sufficient.

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