



### *Holiday Stars, North Star, & Star of David*

*Our stars designs are a great way to brighten up the drabness of winter days. They are perfect decorations for a holiday tree, window, or even an office cubical.*



#### Preparing the Molds

The molds must be primed so the glass doesn't adhere to the ceramic material from which the molds are made. There are two choices for primers: Hotline Primo™ Primer and ZYP BN Lubricat (formerly MR-97). The ZYP is the easiest to apply and remove. It is an aerosol and, after firing, brushes off easily from the molds and can be washed off the pieces. Castings created using ZYP have exceptionally

smooth surfaces and almost never require grinding or "cold work."

Primo is a traditional kiln wash that is applied with an artist's brush. It's a trusted and proven product, but requires a bit more "elbow grease" to remove after firing. Primo's big advantages are its low cost and availability.



Brief instructions for each option follow:

To apply ZYP, hold the well-shaken can 10 to 12 inches from the mold. Hold both the mold and the spray can upright. Apply the first, light coat using a two to three-second burst of spray in a sweeping pattern across all the mold's cavities. Do not saturate the surface. If it is the first time ZYP has been applied to this mold, it is necessary to apply a second coat of the product.

Before applying the second coat, let the mold dry for five minutes.

Apply the second coat

using another two to three-second burst of spray. In either case, let the mold dry for ten to fifteen minutes before filling. Again, the double coat of ZYP need be only applied the first time. Thereafter, only one coat is necessary. For more information about ZYP, visit our website. Then, download and read *Priming with ZYP Boron Nitride Aerosol*.

If you choose to use Primo Primer, give your mold three to four thin, even coats of Hotline Primo Primer kiln wash. Use a soft artist



brush to apply the Primo Primer and a hair dryer to completely dry each coat before applying the next.

Again, more detailed instructions can be found on our website. See *Tricks of the Trade*. When using Primo Primer, best results are ob-

#### Tools

- ✓ Small artist's brushes
- ✓ Digital scale
- ✓ Holiday Stars, North Star, and/or Star of David designs
- ✓ Small measuring spoons

#### Supplies

- ✓ Fine colored frit
- ✓ Medium Clear frit
- ✓ CBS Dichroic Flakes
- ✓ ZYP BN Lubricat or Hotline Primo™ primer

## REUSABLE MOLDS FOR GLASS CASTING

tained when using **fi**ne frit. Larger frit can produce excessive casting spurs that require cold work.



### Filling the molds

The molds can simply be **fi**lled with frit or a mixture of frits to create simple holiday stars. Consult the Fill Weights table below and use the weight in the column labeled “Total Fill Weight”. We **fi**nd the best results are usually ob-tained by “diluting” colored frit with clear frit. Even dark, opaque colors like blacks and browns be-come much more rich when mixed

with clear frit. (See our document *Creating Frit “Paint Chips”*) It is im-portant to remember that, when using frit, to wear a dusk mask.

The technique on which we con-centrate in this project sheet results in a more complex look but still requires only one **fi**ring.



Consult the table below and note there are different Base, Flakes, and Clear weights for the Small and Large stars. Choose a **fi**ne colored frit - either opal or trans-parent - to use as a base layer.

Weight out the appropriate Base Color weights and put them in each star. Level this with a small artist’ s bush.

Next, evenly sprinkle about half to one or two grams - dependent on the star size - of CBS Dichroic Flakes over the colored frit. Use a small artist’ s brush to move any dichroic **fl**akes away from the mold’ s edges.



Fill the remainder of each cavity with the specifi ed medium Clear frit. Evenly distribute it and, if necessary, gently use the artists brush to level the Clear frit.

### Fill Weights

| Design              | Base Color | Dichroic Flakes | Medium Clear | Total Fill Weight |
|---------------------|------------|-----------------|--------------|-------------------|
| Small Star          | 6 grams    | 1 gram          | 10 grams     | 17 grams          |
| Large Star          | 10 grams   | 2 grams         | 13 grams     | 25 grams          |
| North Star          | 12 grams   | 3 grams         | 15 grams     | 30 grams          |
| Small Star of David | 12 grams   | 3 grams         | 15 grams     | 30 grams          |
| Large Star of David | 15 grams   | 5 grams         | 30 grams     | 50 grams          |

### General Firing Schedule\*

| Segment | Ramp          | Temperature      | Hold  |
|---------|---------------|------------------|---|
| 1       | 300° F/165° C | 1440° F (780° C) | 10 minutes for <b>fi</b> ne frit<br>10-20 minutes for medium frit |
| 2       | AFAP          | 900° F/485° C    | 30 minutes. Off   |

\*Schedule for COE 90 or Bullseye Glass. For COE 96, decrease casting temperature by 20° F/ 10° C and anneal at 960° F/515° C. AFAP means “As Fast As Possible”, no venting

Once all the cavities have been **fi**lled, **fi**re the mold according to the General Firing Schedule.





### Using Colored Dichroic Frit

Another technique is to use colored dichroic frit. This is really effective in creating a beautiful, shimmering effect.

Again, start with a newly primed mold. Starting with medium, clear frit, **fill** the mold's cavity or cavities with one-third of the **fill** weight. Next, add one-third of the mold's **fill** weight of **fi**ne or medium colored, dichroic frit. Finally, add a third, equal layer of medium, clear frit. The result is a frit "sandwich" with the "bread" being clear frit and the "cheese" being colored, dichroic frit. Fire according to the General Firing Schedule.

### Reusing the Molds

Clean mold thoroughly after each **fi**ring with a stiff, nylon bristle brush. Avoid breathing any dust by wearing a proper dust mask. Reapply primer before subsequent **fi** rings.

If correctly primed and **fi**red, a Colour de Verre mold will yield many castings.