



Priming Colour de Verre Molds Using MR-97 Spray

MR-97® is a boron nitride (“BN”) spray. When applied to Colour de Verre molds, the results are superior castings, virtually no spurs or sharp edges, and a beautiful, shiny surface. Application is as easy as applying a cooking spray. So what is the hitch? This sounds just too good to be true.

The biggest considerations are:

- Application requires a bit of finesse. MR-97 spray contains an ultra-fine powder. One must make sure that the entire surface is thinly, but completely covered.
- Once you start using a BN spray on a mold, you can’t go back. The spray seals the mold and traditional primers won’t be absorbed evenly.
- We tested MR-97 in firings up to 1440°F. We noted at higher tem-

peratures, MR-97 worked best with transparent glasses. At these higher temperatures, a cloudiness appeared on opal glasses. We believe this surface cloudiness or veiling might be mitigated by reducing temperatures and, instead, increasing hold times. This cloudiness can also be reduced by mixing opals with at least 50% clear or transparent frits.

- Like all fine particle products, it is important to wear a dust mask. Also, because of the propellents, it is important to apply it and remove it outside or in a well-ventilated space.
- BN sprays costs more than Hotline Primo Primer. A tub of Primo Primer cost about \$10 and will coat hundreds of molds. A can of quality BN runs about \$40 and will give you four to five dozen uses depending on the molds’ size.

Not all BNs are Equal

After testing many boron sprays, we discovered a clear winner: MR-97. This product gave us consistent, superior results.

MR-97 is a touch more expensive than some of the other BN products. However it only takes one broken mold or stuck casting to persuade you not to use a lesser quality product. MR-97 is available at our website, colourdeverre.com; Coho Marketing, MR-97.com; and art glass distributors and stores.

Applying MR-97

If your mold has been used before, completely remove all the old Primo Primer from the mold with a stiff nylon kitchen brush and/or tooth brush. Read the instructions on the MR-97 can. The Material Safety Data Sheet can be downloaded from MR-97 product detail page in our online store. *Make sure to shake the can thoroughly for at least 30 seconds after you start hearing the ball freely rattling inside the can.*

The first time MR-97 is used on a mold, it is necessary to apply two coats of the product. Hold the can 10 to 12 inches from the mold. *Hold both the can and the mold upright.* For smaller, shallow molds, apply the first, light coat using a two to three-second burst of spray in a sweeping pattern across all the mold’s cavities. For larger molds – our box molds for example – use a three to five-second blast making sure to cover the deepest recesses. Do not saturate the surface. Set the mold aside for five minutes so it can dry. Once dry, reapply a second coat using another two to three-second (three to five-second for larger molds) burst of spray. Let the mold dry for ten to fifteen minutes. The mold is ready to fill.

We noted that a can of MR-97 that is less than half full sometimes doesn’t spray product as heavily. In this case, increase spray time by a second or two.

Filling the Molds

The MR-97 surface is delicate and care must be taken not to scratch away the primer as you fill the

mold. We recommend using powder, fine, and medium frit as opposed to larger meshes or broken sheet glass. The larger frit can scratch the surface and create potential sticking problems.

Cleaning Your Castings

It is important to remove any residual boron nitride from your glass casting otherwise your cast components will not tack fuse properly in your next firing.

Wash the casting in warm water with a little dish washing liquid and a mild, abrasive cleansing powder like Bon Ami®. Rinse thoroughly and dry.

Subsequent Firings

The MR-97 becomes powdery after firing and it is best to remove it so that it doesn't mix with frit on the next firing. We strongly suggest doing this outside or in a well ventilated area wearing a dust mask. Use a stiff, nylon kitchen brush and/or toothbrush – the same tools used to remove Primo Primer – to remove the BN powder. The cleaned surface will look burnished and shiny. Reapply *one* thin coat of MR-97 as before. The surface should now look matte. If any areas are still shinny, touch up with a little more spray. Let the mold dry for ten to fifteen minutes before refilling.