



WATER-BASED DIAMONDKOTE APPLICATION METHODS

I. Technology

- A. DIAMONDKOTE is a semi-permanent mold release, which provides multiple releases.
- B. It's a water-based emulsion, which is stable and requires virtually no agitation. (Solvent based products are also available.)
- C. When sprayed onto a hot tool (above 180°F), it cures almost instantly.

II. Safety and Hygiene

- A. As with spraying all products, we recommend wearing safety glasses.
- B. Keep spray out of eyes and open cuts.
- C. If spilled on clothes, remove the article and allow the fabric to air-dry.
- D. Good ventilation is recommended when applying the product.

III. Spray Technique

- A. A clean tool is preferred, however good performance can generally be achieved even on an unclean tool. If the tool is not clean the release film may be deposited onto a surface with poor reception, thus effecting longevity and performance.
- B. Apply the product as lightly as possible while still achieving uniform wetting of the film.
- C. When coating a tool for the first time, 2 to 3 light coats are needed to season the tool. Allow proper drying time between coats. Changing spray angles (north to south, east to west, and diagonally) will ensure uniform coverage.
- D. Use a dry piece of cardboard to test the spray atomization of the spray gun to ensure that uniform wetting is occurring; to test for over application, spray a smooth metal surface at room temperature and check for gross puddling or running.
- E. If wiping on, use a clean, 100% cotton applicator cloth.

- F. At temperatures below 100 °F, the film will be dry to the touch in 5 to 10 minutes. It will continue to cure at ambient temperatures, but can be sped up by exposing to 200 °F or hotter. This will ensure an even harder film surface.
- G. For touch-up on hot tool surfaces: use same spray technique as for ambient. Water carrier will dry quickly upon contact, so observing the wetting of the film may be difficult (just have faith) on hot tooling.
- H. Re-application should occur before sticking or failure happens. If failure is anticipated every 20 cycles, then touch-up should occur about the 16th cycle or 20% sooner than failure. One light, uniform coat is sufficient for touch-up.

IV. **Benefits of DIAMONDKOTE**

- A. Reduced build-up This allows the mold to remain in production longer with less downtime. It also reduces scrap.
- B. Controlled transfer This will improve post-decoration and bonding.
- C. Multiple releases This provides for more consistent part and less operator time involving excessive mold spraying touch-up.
- D. Superior release-ease This is especially noticeable on more troublesome materials.
- E. Stable material This avoids the need for any type of on-line agitation.
- F. Easier cleaning This is achieved because what polymers eventually do build-up on the tool surface can be more readily removed since it's resting on the lubricous DIAMONDKOTE surface.