

HC & HCF General Application & Storage

*As when handling all chemical solvents; personal protective clothing, eye protection, and solvent resistant gloves, should be worn at all times.

FOLLOW THE INSTRUCTIONS EXPLICITLY!!!!

CONTENTS OF THE KIT

1) Each Nanomoldcoating® kit comes with:

- o (1) bottle of Nanomoldcoating®
- o (1) bottle of Nanomoldcoating® remover
- o (2) microfiber application cloths
- o (2) microfiber tipped application wands for hard to reach areas.
- o (1) spray atomizer to be used for remover only

2)

The Nanomoldcoating® bottles come with a “Euro-dropper” insert in the bottle. This is built in to allow the person applying to meter the amount of liquid being applied to the microfiber cloth or microfiber swab. It can be removed if necessary.

3) The enclosed “sprayer” or “atomizer” is to be used only for the remover and not to apply the coating. It should be removed from the remover bottle and pumped free of any product after use.

NOTES

Essential to the success of the coating:

- 1) **PROPER CLEANING** - Residual oils left in the coated surface may cause the coating to wear prematurely.
- 2) **PROPER HEATING** – The heating process initiates the catalyst in the coating.
- 3) **PROPER CURING** – Once the catalyst is activated it requires a minimum of (3) hours for it to harden the coating. Although the surface seems dry, it needs the full (3) hours to completely cure. If not the coating may experience premature wearing.

MOLD CLEANING

- 1) Begin by pre-cleaning surfaces with a standard mold cleaner/degreaser. Remove all surface debris and any oils, lubricants, or rust inhibitors from the pores and crevices of the mold.
- 2) Use any clean white cloth wetted with ethanol, IPA alcohol, acetone, or MEK solvent, to remove any residual degreaser and oils. Do not use red shop rags. These are often impregnated with lubricants or detergents.
- 3) Continue cleaning with solvent until no oil, or debris is evident on the cloth.
- 4) Cover the cleaned surface with a clean cloth and allow to dry for a minimum of (5) minutes.

NANO APPLICATION

- 1) Apply 3-4 drops of Nanomoldcoating® on the microfiber cloth or swab.
- 2) Apply a thin and even layer of Nanomoldcoating® to the mold surface. Remove any excess pooling immediately. When applied correctly it should appear wet but not dripping.
 - Visualize: When applying a “thin” layer, the surface should look as if you wiped it with an alcohol wipe. It appears wet and then slowly evaporates.
 - Technique: When applying try to work in one direction at a time and be careful not to leave swirl marks in the surface. In clear parts swirls can show up on the surface.
 - For highly polished surfaces it may be necessary to lightly “fan” any swirls out of the surface.
- 4) Using a heat gun apply heat (setting at 550-600F with high air flow) at approximately (4-6) inches from the surface. Apply heat in a slow sweeping, back and forth motion for 10 minutes over the entire coated area.
- 5) The temperature setting is based on the heat of the air coming from the gun. It is not meant to heat the substrate to the temperature of 550-600F.
 - In the case of large tools coat and heat up to 24” square sections at a time.
 - Similarly, In the case of large cavitation tools: Coat and heat four to eight cavities at a time. Spend (2-3) minutes per cavity heating the coated areas.
- 6) Air flow is critical to the cure process. A convection oven can be used as it provides heat and sufficient air flow. Standard ovens will not work.
- 7) Let sit for a minimum of (3) hours. It is not sufficient for the coating to be “dry”. This is just the beginning of the cure cycle. It requires the minimum (3) hours to properly harden.
- 8) For longer coating life repeat **NANO APPLICATION** steps 1-4 before going into production. (**It is possible to recoat over the coating for touch up and continued release)
- 9) The mold is now ready for production.

REMOVER

- 1) If at any time coating removal is required: spray remover onto the surface and let soak in for 1-2 minutes. This breaks up the chemical bonds.
- 2) Rub aggressively to remove the coating.