

# DOLPH INSULATING

## varnishes



### Helpful Hints for Varnish Use



#### CURING

To cure properly, the varnish must see the recommended temperature for the prescribed time, *after* the part reaches that temperature. Double check for recommended oven temperature, part temperature, length of cure, and oven load. The more mass in the oven the longer the cycle.



#### VENTILATION

Varnish cure requires proper ventilation (air flow in the oven). Solvent fumes can slow the cure, as well as represent a dangerous condition. One varnish may also interfere with the cure of another, so to eliminate contamination avoid curing different materials in the same oven.



#### EVAPORATION

After a tank is filled with a solvent varnish, the solvent is constantly evaporating – often much faster than realized. This loss must be made up with a recommended thinner. Failure to do so will result in cure problems, blistering, stringers, and poor physical and electrical properties (soft film). Check varnish viscosity regularly with a Dolph Cup or other appropriate device. Be sure the varnish is always tested at the same temperature and add thinner as needed.



#### CLOUDING & SEPARATION

To eliminate varnish clouding and separation during the cold winter months, never add more than 10% thinner at one time, mixing thoroughly and quickly. Be sure that what you're adding to the tank (varnish or thinner) is approximately the same temperature (70°F) as the tank. (Bring the material into a heated place the night before adding.)



#### PREHEATING

The recommended procedure is to dip the device at 120-150°F. This will warm the surrounding varnish and promote complete penetration, improve the drain, and ensure a better cure by reducing the chance of trapping solvents in the device. Then be sure your oven is hot (275-325°F for solvent varnish, or higher for solventless). This will minimize the drain in your oven and improve the film.



#### STORING

When varnish drums must be stored outside, they should be stacked in the horizontal position. If stored in the vertical position, water accumulation on the head will be drawn into the drum, thus contaminating the varnish.



#### EXPEDITING TESTING

To expedite laboratory testing of tank samples be sure to send a large enough sample (a quart). Mark the sample with the name and number of the product and your company name. Mention the thinner that is used in the tank on a regular basis (along with the size of the tank). Indicate what kind of analysis is needed – routine check, compatibility, question or problem, and any details regarding the problem. Solvent based materials should be submitted every six months – solventless every three months.



#### CURING COMPOUNDS

If a two-part epoxy compound fails to cure and remains liquid, soft or tacky – check for incorrect mix ratio, contamination, moisture, or too low an ambient temperature.



#### MIXING RESINS

If you have soft areas or a marbled effect in your cured compound, improper mixing is the problem. Look for unmixed resin in the bottom of the can or trapped under the lip of the can. You should never mix and pour from the same container.

for all Dolph products..... contact..... [Morgan Industrial Carbon](http://www.morgancarbon.com)



#### Head Office-Sydney

21 Amour St  
Revesby NSW 2212  
T: 02 9772 5600  
F: 02 9774 5677  
E: [sales@morgancarbon.com.au](mailto:sales@morgancarbon.com.au)

#### Melbourne

5/23-25 Bunney Rd  
South Oakleigh VIC 3167  
T: 03 9551 2377  
F: 03 9551 2177  
E: [mel@morgancarbon.com.au](mailto:mel@morgancarbon.com.au)

#### Perth

4/195 Bannister Rd  
Canning Vale WA 6155  
T: 08 9456 3711  
F: 08 9456 3716  
E: [per@morgancarbon.com.au](mailto:per@morgancarbon.com.au)

#### Brisbane

34 Aerodrome Rd  
Caboolture QLD 4510  
T: 07 5433 7100  
F: 07 5432 4899  
E: [bri@morgancarbon.com.au](mailto:bri@morgancarbon.com.au)

#### Auckland

5c Clemway Place  
PO Box 21195  
Henderson Auckland 1231 New Zealand  
T: 09 836 9220 / 0800 CARBON (0800 227 266)  
F: 09 836 9129 / 0800 4 BRUSH (0800 427 874)  
E: [sales@morgancarbon.co.nz](mailto:sales@morgancarbon.co.nz)