

### T. I. P. #17

## **Reducing Bubbles Trapped by Vinyl Film**

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When air and other gasses collect under vinyl film and expand due to heat, they can generate enough force to eventually lift the vinyl off the sign surface, forming small bubbles.

In some cases the gasses are escaping from paint finishes which are not completely cured, and other times the base material itself can "outgas." This occurs most frequently in acrylic and polycarbonate sheeting. Finally, the installer can create bubbles or "lift" them into a graphic during the installation itself.

Since bubbles are almost always the symptom of variables controlled by the installer, the good news is that they can easily be reduced by making some small technique changes.

- Be sure paints have had plenty of time to cure in warm dry conditions.
- Be sure to let sign substrates of thick plastic sheet stock "outgas" by removing the protective tape early in the sign making process.
- Do not apply too much wetting solution onto sign or graphic surfaces.
- Do not be in a hurry when removing application tape.
- Use soft squeegees or rollers to apply to rough surfaces.

### **If you are faced with bubbles in a finished sign:**

1. Give the sign some time to breathe (the vinyl will release trapped volatiles, but polyester and reflective films will not), bubbles will diminish in 4 or 5 days.
2. Pop bubbles by poking them with a pin or dart and push the air out with a finger.

