



## **SPECIAL EFFECT FILMS PRINTING, CUTTING, AND INSTALLATION TIPS**

Properly processed and applied, Special Effect Films provide up to 5 years exterior life. Durability varies depending on environmental conditions, installation procedures, finishing and product suitability to the intended application.

Edge sealing is necessary for applications that result in exposure to drastic weather. An overlaminating film is required for printed graphics used in outdoor applications.

### **Plotter Cutting**

For best cutting results, use a sharp 35° to 45° blade at a slow cutting speed (when using swivel type cutters). Optimal cutting pressures vary depending on plotter type and blade sharpness. However, typical pressure is between 135 grams and 165 grams.

### **Thermal Die Cutting**

Cut at heat settings between 295 and 300 F (146 -149 C), and dwell times between 1/4 and 1/2 second. Thermal die cut decals have slightly raised edges, which are prone to edge curling. Edge sealing will provide additional protection.

### **Screen Printing**

Special Effect Films are printable with the following inks:

3M 9700 UV inks

Nazdar 3500 UV inks

Sericol TMI II

### **Digital Printing**

Special Effect Films are printable using a wide range of digital printing technologies. Waterbased inks will not adhere properly.

Always test the vinyl with the ink system prior to production.

Prints work best using a profile for White Intermediate High Gloss Vinyl at lower temperatures (35-40 C). Using high printer temperature settings can cause Special Effect Films to expand and contract resulting in tunneling on the release liner. Settings may vary from one printer to another and from one ink system to another.

Special Effect Films **must** be at room temperature (70 F/21 C) prior to printing. Colder ambient temperatures can result in extended ink curing time.

Heavy concentrations of ink, especially ecosolvent inks, will contribute to shrinking and edge curl of Special Effect Films.

Allow at least a 1/4" (6mm) border around any printed image to minimize shrinkage. You may need to increase the size of the border for images with heavy concentrations of ink. **Never** cut into the printed image.

### **Installation**

Special Effect Films are suitable for general purpose signage applications on Clean, Smooth, Non-Porous, Flat, Vertical Surfaces. Special Effect Films will not conform well around compound curves, corrugations and rivets.

If the application surface has seams (such as truck panels), then you must cut the vinyl along these seams. After cutting the film, use the edge of your squeegee to tuck the vinyl into the panel seam.

Please note that Special Effect Films will not adhere well to untreated low-energy surfaces, such as polyethylene and polypropylene.

Some clear coats and automotive paints contain additives to repel dirt, grime, etc., which can cause adhesion problems.

All metalized films, including Special Effect Films, Reflective Films & Metalized Polyester Films, are not recommended for application to untreated metal surfaces. Dissimilarity of metals can result in galvanic corrosion.

If installing on a newly painted surface, make certain that the paint is fully cured. If not, outgassing will occur and cause bubbles underneath the vinyl. Follow the paint manufacturer's instructions for curing times.

When applying Special Effect Films to another vinyl, a premium cast vinyl is recommended. The plasticizers in many intermediate vinyls can cause bubbles and adhesion problems later.

The optimal ambient temperature for the application of Special Effect Films is 70 F (21 C).

Do not apply wet. Special Effect Films must be applied dry.

Apply only to clean, smooth non-porous surfaces.