



General Formulations Concept® 230, AutoMark is a high performance polymeric calendered vinyl film designed for use as vehicle wraps and other large format graphic applications that require good film conformability. While the majority of wrap film companies produce cast vinyl films for this application, General Formulations' AutoMark provides a calendered vinyl solution that can be used for wrap and fleet applications. Concept® 230 vinyl has nearly equal dimensional internal stress that gives it uniform shrink in both the machine and cross direction. Conventional vinyl calendering processes can result in unbalanced film shrink when exposed to heat. AutoMark Conformable Wrap Vinyl is engineered to compete well with cast products for shrink during both application and long term aging.



AutoMark vinyl has a surface gloss that has been formulated to match traditional cast vinyl. Our vinyl has an initial surface gloss of > 80 when measured at a 60° observation angle. This is comparable to most white pigmented cast vinyl films used in wrap applications.

AutoMark Laminate, Concept® 231, is also formulated with a surface gloss

> 80 when measured at 60° observation angle. If surface gloss of the laminate is reduced by handling or aging, the application specialist may wish to "gloss up" AutoMark wrap film before or during application. The surface can be quickly re-glossed using heat gun to produce moderate heat.

To insure a good result during application, AutoMark must be printed and laminated correctly. The correct ICC profile will ensure that the right amount of ink is applied to your vinyl. AutoMark profiles are available on General Formulations website at www.generalformulations.com or by contacting General Formulations Customer Service Department. Ink oversaturation and poor ink drying will cause excessive vinyl shrinkage and adhesive failure. This is especially critical with dark graphics. Be sure all solvent and eco solvent inks are thoroughly dry before lamination. Ink dry times will vary depending on saturation and color so each job have to be evaluated independently. One method to quicken ink drying is to set the printed roll on end and unspool the entire printed area so air can circulate between the layers of the print job. During the drying process, be sure no air borne dirt, dust, or debris is allowed to settle on the ink surface. These substances will cause surface bumps and create a sandpaper look when laminated. Use a tack cloth or roller cleaner before lamination.

Improvements in the vinyl calendering manufacturing process over the years has allowed General Formulations to perfect this product and reduce vinyl film thickness to 2.4 mils. Although the thickness of AutoMark is slightly higher than a typical cast vinyl which measures in the range of 2.0 mils, this is significantly lower than 3.0 to 3.5 mils typical of most calendered vinyl products. Many installers actually prefer the additional thickness of AutoMark during application, especially if the film has to be repositioned during installation. The added

thickness allows AutoMark to pop off the substrate whereas the thinner cast film could require peeling and this could induce unwanted stretch when reapplying the graphic. AutoMark incorporates deep channel Air-Egress technology into the liner. AutoMarks' 2.4 mil face film and (deep channel) air-egress liner work in combination with the unique adhesive allows for repositionability of the graphics.

When encountering deep channels for door rails or similar body profile changes; extra care must be taken. To begin with, the surface must be thoroughly cleaned. This means wheel wells, door jams, headlights, taillights, door handles and any other difficult to reach panel or wrap around point. In most instances it is recommended these trim pieces be removed prior to graphic installation. Be sure all dirt, road grime and wax are removed before AutoMark is applied. Once the graphic is applied, heat must be used to relieve stress in areas of channels or deep contour change (known as Heat Setting).

An IR thermometer can help you gauge when you have achieved the correct temperature for easing film memory. This will occur when a temperature of 220° to 250°F has been achieved. Finally, relief cuts in deep channels are recommended.

AutoMark is a premium quality polymeric calendared vinyl film but the physical properties are quite similar to cast vinyl that installers are accustomed to working with in wrap applications. Experience is the best educator in specific application techniques. Once an installer has confidence in their procedures they can realize the value AutoMark offers in comparison to a cast product in the wrap market. For answers to your specific questions in the application of AutoMark, contact General Formulations Customer Service Department at 800-253-3664.

