

# TECHNICAL DATA SHEET

## GF 231 AUTOMARK™

### 2.4 MIL GLOSS UV WRAP LAMINATE CLEAR PERMANENT ADHESIVE

GF 231 is a Premium 2.4 mil calendered gloss clear laminate with a clear permanent acrylic adhesive on a 53# PE coated kraft liner. This laminate offers protection from ultra violet radiation, moisture and other environmental exposures. It is can be laminated by using a cold laminating process without the addition of heat and is intended to be paired with GF 230 AutoMark™ vinyl for wrap applications. GF 231 AutoMark™ Premium 2.4 mil calendered gloss laminate is specifically engineered for use in most vehicle wrap and decal applications.

| PRODUCT NAME  | 231   |
|---|---|
| <b>FILM</b>   |   |
| Film Type   | Clear Polymeric Vinyl   |
| Film Thickness (mils/µm)                                    | 2.4 / 61 (+/- 10%)  |
| Film Weight (gsm)   | 75  |
| Gloss (60°)   | ≥ 70  |
| Opacity (%)   | N/A   |
| Tensile Strength (lbs/in)                                   | MD ≥ 4000 / CD ≥ 3500   |
| Elongation (%)  | MD ≥ 225 / CD ≥ 300   |
| Dimensional Stability (FTM 14)                              | MD ≤ 0.50 mm / CD ≤ 0.20 mm   |
| <b>ADHESIVE</b>   |   |
| Adhesive Type   | Solvent Acrylic   |
| Adhesive Thickness (mils/µm)                                | 0.8-1.0 / 20-25   |
| Adhesive Color  | Clear   |
| Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 15 min | 2.5 / 11  |
| Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 24 hrs | 3.8 / 17  |
| <b>LINER</b>  |   |
| Liner Weight (#/gsm)  | 53 / 86   |
| Liner Type  | White PE-Coated 1 side Kraft  |
| Liner Thickness (#/gsm)                                     | 3.5 / 89  |
| Release Force @ 300" / min (g/2")                           | 15-30   |
| <b>PERFORMANCE GUIDANCE</b>                                 |   |
| Application Temperature                                     | ≥ +40 °F  |
| Service Temperature   | -40 °F to 180 °F  |
| Shelf Life  | 1 year  |
| Storage Temp / Rel. Humidity                                | 70 °F / 50%   |
| Outdoor Durability  | up to 7 years   |
| <b>CERTIFICATIONS &amp; RATINGS</b>                         |   |
| Flammability (when used with GF 230 AutoMark™)              | ASTM E84 Class 1 or A (Rating Standard Test Method for Surface Burning Characteristics of Building Materials) |

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### CLEAR PERMANENT ADHESIVE

| PRODUCT SNAPSHOT  | APPLICATIONS   | INK TYPE  |
|---|--|---|
| <b>APPLICATION</b> <ul style="list-style-type: none"> <li><input type="radio"/> WET APPLY</li> <li><input checked="" type="radio"/> DRY APPLY</li> <li><input checked="" type="radio"/> LAMINATING</li> <li><input checked="" type="radio"/> DIE CUTTABLE</li> <li><input type="radio"/> HOT STAMP</li> <li><input type="radio"/> THERMAL DIE</li> <li><input checked="" type="radio"/> FLATBED CUTTABLE</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> POP/RETAIL</li> <li><input type="radio"/> WALL</li> <li><input checked="" type="radio"/> WRAP</li> <li><input type="radio"/> WINDOW</li> <li><input type="radio"/> FLOOR</li> <li><input checked="" type="radio"/> FLEET</li> <li><input checked="" type="radio"/> GENERAL SIGNAGE</li> <li><input checked="" type="radio"/> OUTDOOR (LONG TERM)</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> SOLVENT</li> <li><input type="radio"/> ECO-SOLVENT</li> <li><input type="radio"/> LATEX</li> <li><input type="radio"/> UV CURABLE</li> <li><input type="radio"/> SCREEN</li> <li><input type="radio"/> OFFSET (UV CURABLE)</li> <li><input type="radio"/> OFFSET (CONVENTIONAL)</li> </ul> |
| <b>SUBSTRATES</b> <ul style="list-style-type: none"> <li><input type="radio"/> OEM PAINTED METAL</li> <li><input type="radio"/> PAINTED ALUMINUM</li> <li><input type="radio"/> STAINLESS STEEL</li> <li><input checked="" type="radio"/> PRINTED GRAPHICS</li> </ul>   |  |   |

### FAQS

|  |  |
|--|--|
| What are the intended applications for GF 231?   | This laminate is best suited for long-term outdoor graphics. GF 231 AutoMark™ Wrap Laminate was created to be paired with GF 230 AutoMark™ Wrap Vinyl to create long lasting outdoor graphics for vehicle wrap and decal applications.   |
| Can I use GF 231 AutoMark™ laminate with other print vinyls?                                     | GF 231 will work well with most base vinyls, however for optimal success you will want to pair similar products together.  |
| Can I use a laminate other than GF 231 AutoMark™ Wrap Laminate with GF 230 AutoMark™ Wrap Vinyl? | Although other laminates may work, the warranty outlined by General Formulations is only in effect if the warranted AutoMark™ products are used. The AutoMark™ series of laminates are customize for this specific application (2.4 mil polymeric vinyls ideal for simple curves) We recommend filling out the application checklist on our website to ensure a successful installation. Videos are available on YouTube as well that outline specific techniques. |