

DATA SHEET

GF 238 MOTOMARK[®] ARMOR

12.0 MIL GLOSS UV LAMINATE CLEAR PERMANENT ADHESIVE

GF 238 MotoMark[®] "ARMOR" 12.0 mil is a flexible gloss clear laminate that offers UV protection and is designed for use as a protective overlaminating film when used in combination with GF 235 MotoMark[®] "GRIP" vinyl. MotoMark[®] is recommended for a variety of applications including Quads, Snowmobiles, Motocross, Powersport Vehicles, Helmets and Carts. The adhesive system is formulated to adhere to most common solvent, eco-solvent, latex, thermal, UV, offset and screen inks.

| PRODUCT NAME | 238 |
|-------------------------------------------------------------|-------------------------------------------------------|
| FILM | |
| Film Type | Clear Monomeric Vinyl |
| Film Thickness (mils/µm) | 12 / 305 (+/- 10%) |
| Film Weight (gsm) | 395 |
| Gloss (60°) | ≥ 80 |
| Opacity (%) | N/A |
| Tensile Strength (lbs/in) | $MD \ge 4000 / CD \ge 4000$ |
| Elongation (%) | $\text{MD} \geq 350 \text{ / CD} \geq 350$ |
| Dimensional Stability (FTM 14) | $MD \leq 0.80 \text{ mm}$ / $CD \leq 0.50 \text{ mm}$ |
| ADHESIVE | |
| Adhesive Type | Solvent |
| Adhesive Thickness (mils/µm) | 1.8-2.2 / 46-56 |
| Adhesive Color | Clear |
| Peel Strength on Stainless Steel (Ibs/in) / (N/25mm) 15 min | 4.8 / 21 |
| Peel Strength on Stainless Steel (Ibs/in) / (N/25mm) 24 hrs | 6.5 / 28 |
| LINER | |
| Liner Weight (#/ <mark>gsm</mark>) | 45 / 73 |
| Liner Type | White PE-Coated 1 sided Kraft |
| Liner Thickness (mils/µm) | 3.0 / 76 |
| Release Force @ 300" / min (g/2") | 75-125 |
| PERFORMANCE GUIDANCE | |
| Application Temperature | \geq +40 °F |
| Service Temperature | -40 °F to 200 °F |
| Shelf Life | 1 year |
| Storage Temp / Rel. Humidity | 70 °F / 50% |
| Outdoor Durability | 5 years |

GF 238 | APRIL 2021 309 S. UNION | SPARTA, MI 49345 | P:(616) 887-7387 | T:(800) 253-3664 | F:(616) 887-0537



TECHNICAL DATA SHEET

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| PRODUCT SNAPSHOT | APPLICATIONS | INK TYPE |
|---------------------|------------------------|-------------------------|
| APPLICATION | O POP/RETAIL | O SOLVENT |
| O WET APPLY | O WALL | • ECO-SOLVENT |
| DRY APPLY | O WRAP | O LATEX |
| • LAMINATING | O WINDOW | O UV CURABLE |
| • DIE CUTTABLE | O FLOOR | ○ SCREEN |
| O HOT STAMP | O FLEET | • OFFSET (UV CURABLE) |
| O THERMAL DIE | POWERSPORT VEHICLES | • OFFSET (CONVENTIONAL) |
| • FLATBED CUTTABLE | GENERAL SIGNAGE | |
| SUBSTRATES | O OUTDOOR (SHORT TERM) | |
| ○ OEM PAINTED METAL | OUTDOOR (LONG TERM) | |
| • PAINTED ALUMINUM | | |
| O STAINLESS STEEL | | |
| FAQS | · · | |

| This is a very thick film, can my cutter cut through MotoMark®? | Most cutters, printer/cutters and cutting software have specific instruc- tions on how to achieve this. General Formulations has a set of general guidelines on this topic. Please see our website and under technical tips see "Cutting Thicker Materials". |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Will GF 238 adhere to all ink types? | The adhesive system is formulated to adhere to most common solvent, eco-solvent, latex, thermal, UV, offset and screen inks. However, specific formulations must be tested before use. Some ink may contain excessive flow additives that could reduce adhesion of this product. Testing is always suggested before production. |

 For Standard Terms & Conditions: www.generalformulations.com/terms-conditions
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