

# TECHNICAL 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
<b>FILM</b>	
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 ≥ 4000 / CD ≥ 4000
Elongation (%)	MD ≥ 350 / CD ≥ 350
Dimensional Stability (FTM 14)	MD ≤ 0.80 mm / CD ≤ 0.50 mm
<b>ADHESIVE</b>	
Adhesive Type	Solvent
Adhesive Thickness (mils/μm)	1.8-2.2 / 46-56
Adhesive Color	Clear
Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 15 min	4.8 / 21
Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 24 hrs	6.5 / 28
<b>LINER</b>	
Liner Weight (#/gsm)	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
<b>PERFORMANCE GUIDANCE</b>	
Application Temperature	≥ +40 °F
Service Temperature	-40 °F to 200 °F
Shelf Life	1 year
Storage Temp / Rel. Humidity	70 °F / 50%
Outdoor Durability	up to 5 years

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CLEAR PERMANENT ADHESIVE

PRODUCT SNAPSHOT	APPLICATIONS	INK TYPE
<p><b>APPLICATION</b></p> <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 type="radio"/> WRAP</li> <li><input type="radio"/> WINDOW</li> <li><input type="radio"/> FLOOR</li> <li><input type="radio"/> FLEET</li> <li><input checked="" type="radio"/> POWERSPORT VEHICLES</li> <li><input checked="" type="radio"/> GENERAL SIGNAGE</li> <li><input type="radio"/> OUTDOOR (SHORT TERM)</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>
<p><b>SUBSTRATES</b></p> <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> </ul>		

## FAQS

<p>This is a very thick film, can my cutter cut through MotoMark™?</p>	<p>Most cutters, printer/cutters and cutting software have specific instructions 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".</p>
<p>Will GF 238 adhere to all ink types?</p>	<p>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.</p>