

**TECHNICAL  
DATA  
SHEET**
**GF 209AE METROMARK®**
**3.5 MIL OPAQUE MATTE WHITE TRANSIT VINYL  
CLEAR REMOVABLE ADHESIVE**

GF 209AE MetroMark® is a conformable opaque film designed for short-term transit advertising. The clean removing MetroMark adhesive is combined with an air egress liner to create a trustworthy solution that installs beautifully on smooth surfaces. The high-opacity of the face film makes for excellent coverage over existing designs and decals and removes the need for a grey adhesive to aid with blockout. GF 209AE has an excellent white point and provides a landscape for printing across Eco-Solvent, Solvent, Latex and UV print systems.

PRODUCT NAME	209AE
<b>FILM</b>	
Film Type	Opaque White Polymeric Vinyl
Film Thickness (mils/μm)	3.5 / 89 (+/- 10%)
Film Weight (gsm)	130
Gloss (60°)	≤20
Opacity (%)	99
Tensile Strength (lbs/in)	MD ≥ 3500 / CD ≥ 2500
Elongation (%)	MD ≥ 90 / CD ≥ 200
Dimensional Stability (FTM 14)	MD ≤ 0.50 mm / CD ≤ 0.40 mm
<b>ADHESIVE</b>	
Adhesive Type	Emulsion
Adhesive Thickness (mils/μm)	0.8-1.0 / 20-25
Adhesive Color	Clear
Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 15 min	1.0-1.5 / 4.4-6.6
Peel Strength on Stainless Steel (lbs/in) / (N/25mm) 24 hrs	1.3-1.8 / 5.7-7.9
<b>LINER</b>	
Liner Weight (#/gsm)	90 / 145
Liner Type	White 2-Sided PE Coated Kraft Air Egress
Liner Thickness (mils/μm)	6.7 / 170
Release Force @ 300" / min (g/2")	30-50
<b>PERFORMANCE GUIDANCE</b>	
Application Temperature	≥ +20 °F
Service Temperature	-40 °F to 200 °F
Shelf Life	1 year
Storage Temp / Rel. Humidity	70 °F / 50%
Outdoor Durability	5 years
Removability (under normal conditions)	1 year
<b>RATINGS &amp; CERTIFICATIONS</b>	
Flammability	ASTM E84 Class 1 or A (Rating Standard Test Method for Surface Burning Characteristics of Building Materials)

# TECHNICAL DATA SHEET

GF 290AE - 3.5 MIL OPAQUE MATTE WHITE TRANSIT VINYL  
CLEAR REMOVABLE 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 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 checked="" type="radio"/> POP/RETAIL</li> <li><input checked="" type="radio"/> WALL</li> <li><input checked="" type="radio"/> WRAP (SIMPLE CURVES)</li> <li><input type="radio"/> WRAP (COMPLEX CURVES)</li> <li><input checked="" type="radio"/> WINDOW</li> <li><input type="radio"/> FLOOR</li> <li><input type="radio"/> TRANSLUCENT</li> <li><input type="radio"/> FLEET</li> <li><input checked="" type="radio"/> TRANSIT</li> <li><input checked="" type="radio"/> GENERAL SIGNAGE</li> <li><input checked="" type="radio"/> OUTDOOR</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="radio"/> SOLVENT</li> <li><input checked="" type="radio"/> ECO-SOLVENT</li> <li><input checked="" type="radio"/> LATEX</li> <li><input checked="" type="radio"/> UV CURABLE</li> <li><input checked="" type="radio"/> SCREEN</li> <li><input checked="" 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 checked="" type="radio"/> OEM PAINTED METAL</li> <li><input checked="" type="radio"/> PAINTED ALUMINUM</li> <li><input checked="" type="radio"/> STAINLESS STEEL</li> <li><input checked="" type="radio"/> GLASS</li> </ul>		

## FAQS

Is GF 209AE MetroMark® Transit Approved?	Yes. MetroMark® is an approved and specified material for multiple transit-related applications including King/Queen/Tail bus advertisements, opaque removable graphics, and layered poster graphics.
Can GF 209AE be used as a wrap film?	MetroMark® is conformable film that can go around simple curved surfaces. The adhesive system is strong enough to hold your graphic in place, but robust enough to remove cleanly.
Can you put GF 209AE over the top of existing graphics?	Yes. GF 209AE is opaque and can be layered on top of existing graphics. These films can be used for one, two and three sheet subway advertising posters, architectural signage, commercial-retail signage, industrial identification decals, safety decals, point-of-purchase graphics and other decals requiring extended life. Keep in mind, adhesive vinyl products can bond with other vinyl materials and might not allow MetroMark® to be removed cleanly from other graphics.
Should MetroMark® be laminated?	Although it is not necessary to laminate MetroMark®, you may choose to do so depending upon what type of abrasion and or cleaning detergents the graphics will encounter. GF 100 series overlaminates are recommended in those situations.