

# PRODUCT CHARACTERISTIC SHEET and COC

## ***PLEASE READ BEFORE USING!***

**Material: ARMALEX™ 10 MIL GLOSS-GLOSS**

**Part Nos: ALRP101550GG**

**General Description:** Rigid clear Lexan® 8010 Polycarbonate with a gloss top surface and a smooth sub-surface coated for thermal transfer printing. Armalex™ is rolled "print side" out and has a protective mask on both sides of the Polycarbonate to protect polycarbonate from blocking and scratching. Prior to printing remove protective mask from outside wrap of roll. Intended uses include graphic overlays for membrane switches and controlpanels, and sub-surface signage.

Thickness:	10 mil. without the protective liner.	<b>Adhesive Properties:</b> Although Armalex™ does not have adhesive, pressure sensitive transfer adhesives are often used with it. Adhesives should be compatible with polycarbonates.
Outdoor Life:	Intended for indoor use. May discolor over time with continuous exposure to UV light.	
Shelf Life:	2 years stored at 70° F & 50%RH	
Service Temperature Range:	(-40° F to 212° F)	
Minimum Application Temp.:	N/A	

### Tests performed | results:

Physical	Value	Unit	Test Method
Specific Gravity	1.2	g/cm3	ASTM D792
Area Factor (Yield Factor)	0.0433	Lb/in3	
Mechanical	Value	Unit	Test Method
Tensile Strength at:			ASTM D882
Yield	8500	psi	
Break	9000	psi	
Tear Strength at Initiation	1.4 - 1.8	lb./mil	ASTM D1004
Tear Strength at Propagation	30 - 55	lb./mil	ASTM D1922
Thermal	Value	Unit	Test Method
Glass Transition	153	C	ASTM 3417 / D3418
Shrinkage			ASTM 1204 (150C)
MD	1.4	%	
TD	1.4	%	

## CERTIFICATE OF CONFORMANCE (COC)

<b>Sold to:</b>		<b>Lot No.:</b>	
<b>Buyer:</b>		<b>PO#</b>	
<b>Supplier:</b>	Graphic Marking Systems	<b>MFR Part No:</b>	Top of the page
<b>MFR Date:</b>		<b>Ship Date:</b>	
		<b>Title:</b>	Converting Manager

### Recommended Application Techniques:

Remove the protective cap from the portion of the roll intended to be printed on. Once printed, use a paper interleaf between finished sheets if they are to be stacked. If you must clean the surface, use distilled water and let dry before printing. Do not expose to alcohol, strong Alkalis, Amines, Esters, Aromatic Hydrocarbons, or Ketones. Use mild detergents or sprays to clean the gloss non-print surface.

### GSP Software Settings:

In Gerber's software, select LexEdge® or 3M 220 for the material print setting. For cutting, use the setting for LexEdge® Do not attempt to cut all the way through the Armalex™. Use a 45° blade and score cut the material at least half way through. Once it is score cut, you may fold Armalex™ along a cut line until it cracks apart. Then carefully remove the unwanted scrap. For best results, make some test cuts first to determine the best blade force.

**USE A 45° blade or 60° BLADE on any combination of material 8 mil or thicker.**

#### Disclaimer:

All of the descriptive information listed above is our recommendation only. This information does not suggest or constitute a written or verbal warranty or guaranty of any kind by the manufacturer or distributor of this product. Although this material can be printed on with some solvent based printers, the surface characteristics of the material can change from roll to roll, and failure of optimal printing results are not a basis for returning the product. Purchasers of this product shall be responsible for independently determining the suitability of the material for the intended application. GMS0612 Graphic Marking Systems

# Material Safety Data Sheet (MSDS)

<b>Material Name: ARMALEX™ 10 MIL GLOSS-GLOSS</b>		<b>Company:</b>	
<b>Part Nos: ALRP101550GG</b>		Graphic Marking Systems	
Date Prepared:		Address: 28457 N. Ballard Rd., Suite A1 Lake Forest, IL 60045	
<b>General Description:</b> Rigid clear Polycarbonate with a gloss top surface and a smooth sub-surface coated for thermal transfer printing.		Phone: 847-582-9276 Fax: 847-582-9282	
<b>Composition and information on ingredients:</b>		<b>UL Recognized:</b> NO	<b>ROHS Compliant:</b> YES
Individual components of this product do not contribute to any known hazards.		<b>REACH Compliant:</b> YES	
OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200): NONE		<b>3TG Compliant:</b> YES	
<b>Hazards Identification:</b>			
POTENTIAL HEALTH EFFECTS: None			
ACUTE: No significant toxic hazard. When burned may produce toxic fumes.			
CHRONIC: No significant toxic hazard.			
None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.			
<b>First Aid Measures:</b>		<b>Fire Fighting Measures:</b>	
Emergency and First Aid Procedures:		Flash Point: N/A	
<b>ROUTES OF ENTRY:</b>		Method Used: N/A	
Inhalation: Not Probable      Skin: Wash with soap and water		Auto-ignition Temperature: N/A	
Eyes: Not Probable      Ingestion: Not Probable		Flamable limits in Air % by Volume: LEL: N/A, UEL: N/A	
<b>Accidental Release Measures:</b> N/A		Extinguishing Media: Multi-rated ABC extinguisher or water	
<b>Handling and Storage:</b>		Unusual Fire and Explosion Hazards: None	
No special handling required other than storing away from excessive heat sources.		<b>Special Fire Fighting Procedures:</b> In case of fire, use self-contained breathing apparatus and full protective equipment - all fires liberate toxic gases.	
<b>Exposure Controls and Personal Protection:</b>		<b>Physical and Chemical properties:</b>	
Respiratory Protection: None required		Vapor Pressure (mm Hg): N/A      Boiling Point: N/A	
Skin Protection: No precautions required		Vapor Density (air = 1): N/A      Melting Point: N/A	
Eye Protection: None required		Appearance and odor: N/A      Reactivity of water: N/A	
Exposure Guidelines: None established		Specific Gravity (H 0=1): N/A      Solubility in water: N/A	
Engineering Controls: Handling above 100° requires ventilation		<b>Stability and Reactivity:</b>	
<b>Toxicological Information:</b>		Stability: N/A	
Carcinogen Status: NTP: NONE    IARC: NONE    OSHA: NONE		Conditions to avoid: Fire or Excessive Heat	
<b>Ecological Information:</b> No Data Available		Incompatibility: None	
<b>Transport Information:</b>		Hazardous Decomposition Products: None	
TRANSPORTATION AND HAZARDOUS MATERIALS DESCRIPTION: Not a hazardous material for DOT shipping.		Hazardous Polymerization: Will not occur.	
<b>Disposal Considerations:</b> Waste Disposal:		<b>Regulatory Information:</b>	
Dispose of in accordance with Local, State and Federal regulations.		<b>OSHA STANDARD CFR 29, PART 1910.1200:</b> This product is considered to be an "article" under this standard.	
<b>Other Information:</b>		<b>SARA 313 INFORMATION:</b> This product contains no substances at or above the reporting threshold subject to the reporting requirement of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 371, based on available data.	
The information contained herein is based on the data available to Graphic Marking Systems, and is believed to be correct. However, Graphic Marking Systems makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Graphic Marking Systems assumes no responsibility for injury from the use of the product described herein.		<b>CALIFORNIA PROPOSITION 65:</b> The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product does not, to the best of our knowledge and belief contain any of the chemicals on the current list of chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.	