

PRODUCT CHARACTERISTIC SHEET and COC

PLEASE READ BEFORE USING!

Material: CONVEX® Lacrosse & Hockey™ Clear and White 8 mil.

Part Nos: C8LH1550C & C8LH1550W

General Description: Clear and White rugged flexible vinyl with aggressive clear permanent acrylic adhesive formulated for plastic helmets. (Use Convex GearWrap for Polycarbonate Football helmets.) Convex for Lacrosse and Hockey helmets is formulated for thermal resin transfer printing. Convex LH is compatible with all Convex and Pro-Shield laminates. *Can also be used for non-aqueous ink jet printing.

Thickness: 8 mil. vinyl with 1 mil of adhesive

Outdoor Life: 2 years

Shelf Life: 2 years stored at 70 F & 50%RH

Service Temperature Range: (-40° F to 176° F)

Minimum Application Temp.: 50° F

Adhesive Properties:

This clear adhesive is more aggressive than GearWrap for plastic helmets, and will work on most surfaces. Convex LH also has a lower minimum application temperature.

Tests performed | results:

Ultimate Peel from	Average OZ/IN	Test Method
Acrylic	115	ASTM D 903 (Modified for 72 hour dwell time)
Glass	76	
Polypropylene	36	
Stainless Steel	62	
Expected Shear Room Temp (hours)	2	ASTM D 3654 Method A a. 1 hrl dwell b. 1 sq. in. surface c. 4 lb. load
Tack (gm/sq cm)	550	ASTM D 2979

CERTIFICATE OF CONFORMANCE (COC)

Sold to:		Lot No.:	
Buyer:		PO#	
Supplier:	Graphic Marking System	MFR Part No:	
MFR Date:		Ship Date:	
		Top of the page	
		Title:	Converting Manager
		Date:	

Recommended Application Techniques:

On curved surfaces such as helmets, apply by rubbing from the center out. When using Convex as a Laminate, as it is separated from the liner, if there is too much drag tension applied to the supply roll, it can stretch and curl up immediately after it is cut on a plotter. Laminate with a cold pressure sensitive laminator or by hand.

GSP Software Settings:

In Gerber's Plot program, click on the "123" button then on the substitute button and select vinyl. Select 3M 220 Premium or Gerber ImageCal from the pull-down menu as the vinyl to print on. If you are using laminates on top of the base material, you will have to determine the best cutter settings by test cutting the finished construction.

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, plasticizers can migrate to the surface of the material, especially if stored above room temperature. If this happens, use alcohol to clean the surface. Failure of optimal printing results via ink jets 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. GMS0519 Graphic Marking Systems

Material Safety Data Sheet (MSDS)

Material Name: CONVEX® Lacrosse & Hockey™ film				Company: Graphic Marking Systems Address: 28457 N. Ballard Rd., Suite A1 Lake Forest, IL 60045 Phone: 847-582-9276 Fax: 847-582-9282			
Part Nos: C8LH1550C & C8LH1550W							
Date Prepared:							
General Description: Clear soft flexible vinyl with a clear permanent acrylic adhesive.							
Composition and information on ingredients: Individual components of this product do not contribute to any known hazards. OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200): NONE						UL Recognized: NO	
						ROHS Compliant: YES	
						REACH Compliant: YES	
Hazards Identification:							
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.							
First Aid Measures:				Fire Fighting Measures:			
Emergency and First Aid Procedures:				Flash Point: N/A			
<u>ROUTES OF ENTRY:</u>				Method Used: N/A			
Inhalation: N/A Skin: N/A				Auto-ignition Temperature N/A			
Eyes: N/A Ingestion: N/A				Flamable limits in Air % by Volume: LEL: N/A, UEL: N/A			
Accidental Release Measures: N/A				Extinguishing Media: Multi-rated ABC extinguisher or water			
Handling and Storage: No special handling required other than storing away from excessive heat sources.				Unusual Fire and Explosion Hazards: None			
Exposure Controls and Personal Protection:				Special Fire Fighting Procedures: In case of fire, use self-contained breathing apparatus and full protective equipment - all fires liberate toxic gases.			
Respiratory Protection: None required				Physical and Chemical properties:			
Skin Protection: No precautions required				Vapor Pressure (mm Hg) N/A		Boiling Point: N/A	
Eye Protection: None required				Vapor Density (air = 1): N/A		Melting Point: N/A	
Exposure Guidelines: None established				Appearance and odor: N/A		Reactivity of water: N/A	
Engineering Controls: None required				Specific Gravity (H 0=1) N/A		Solubility in water: N/A	
Toxicological Information:				Stability and Reactivity:			
Carcinogen Status: NTP: NONE IARC: NONE OSHA: NONE				Stability: N/A			
Ecological Information: No Data Availible				Conditions to avoid: Fire or Excessive Heat			
Transport Information:				Incompatibility: None			
TRANSPORTATION AND HAZARDOUS MATERIALS DESCRIPTION: Not a hazardous material for DOT shipping.				Hazardous Decomposition Products: None			
Disposal Considerations: Waste Disposal: Dispose of in accordance with Local, State and Federal regulations.				Hazardous Polymerization: Will not occur.			
Other Information: 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.				Regulatory Information: OSHA STANDARD CFR 29, PART 1910.1200: This product is considered to be an "article" under this standard.			
				SARA 313 INFORMATION: 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.			
				CALIFORNIA PROPOSITION 65: 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 contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.			