

# PRODUCT CHARACTERISTIC SHEET and COC

## **PLEASE READ BEFORE USING!**

**Material: TUFF COVER™ Outdoor UV laminate**

**Part Nos: TCUV81350CV, and other size rolls**

**General Description:** Rigid clear film with an embossed velvet texture and a clear permanent acrylic adhesive. Use for over laminating. Outdoor testing of Tuff Cover™ in Arizona yielded excellent results for blocking UV damage and preserving printed colors. This film also exhibits excellent resistance to petroleum, cleaning agents, and cracking (flex-stress tests) under the stress of push-button overlay applications. The UV additives inherent in the product can migrate to the surface on rare occasion, and be visible as spots that can be wiped off with a dry cloth. We cannot accept returns if the product is rejected for that reason.

Thickness: 8.5 mil. film, plus 1.5 mil. of adhesive.

Outdoor Life: 9+ years according to independent Outdoor & QUV tests

Shelf Life: 9+ years stored at 70° F

Service Temperature Range: (-40° F to 175° F)

Minimum Application Temp.: 50° F

### **Adhesive Properties:**

Permanent UV inhibiting acrylic pressure sensitive adhesive that works on most surfaces including most vinyl and polyesters. It is not recommended for direct application to low energy surfaces.

### **Tests performed | results:**

Ultimate Peel from	Average OZ/IN	Test Method
Acrylic	79	ASTM D 903 (Modified for 72 hour dwell time)
Glass	60	
Polypropylene	4	
Stainless Steel	39	
<b>Expected Shear</b> Room Temp (hours)	75	ASTM D 3654 Method A a. 1 hrl dwell b. 1 sq. in. surface c. 4 lb. load
<b>Tack</b> (gm/sq cm)	360	ASTM D 2979

## **CERTIFICATE OF CONFORMANCE (COC)**

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

### **Recommended Application Techniques:**

Laminate with a cold pressure sensitive laminator or by hand. To much reverse tension (drag) on the laminate may cause curling in the finished product.

### **GSP Software Settings:**

Because this material is rigid, it may be better to assign "double or triple cuts" for easier cutting. To assign double or triple cuts in Gerber's Omega software, select the cut line in your application, copy and paste it back. Do that twice to get three cuts. In more recent versions of Omega, you may select double cuts or multiple cuts in the settings dialog box in the Plot program. For envision cutter settings, In Gerber's Plot program, go to cutter settings and set the Speed to 50, the Acceleration to 66, the Force to 50 for 3 cuts and 60 or more for 2 cuts, and Sharp Corners to 73. For best results, make some test cuts first, as the condition of your blade will make a difference.

**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. GMS0618 Graphic Marking Systems

# Material Safety Data Sheet (MSDS)

**Material Name:** TUFF COVER™ Outdoor UV laminate

**Part Nos:** TCUV81350CV, and other size rolls

**Date Prepared:** 6/21/2018

**General Description:** Rigid clear film with an embossed velvet texture and a clear permanent acrylic adhesive.

**Company:**

Graphic Marking Systems

**Address:** 28457 N. Ballard Rd., Suite A1  
Lake Forest, IL 60045

**Phone:** 847-582-9276

**Fax:** 847-582-9282

## 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:

Emergency and First Aid Procedures:

### ROUTES OF ENTRY:

Inhalation: N/A Skin: N/A

Eyes: N/A Ingestion: N/A

**Accidental Release Measures:** N/A

## Handling and Storage:

No special handling required other than storing away from excessive heat sources.

## Fire Fighting Measures:

Flash Point: N/A

Method Used: N/A

Auto-ignition Temperature: N/A

Flamable limits in Air % by Volume: LEL: N/A, UEL: N/A

Extinguishing Media: Multi-rated ABC extinguisher or water

Unusual Fire and Explosion Hazards: None

**Special Fire Fighting Procedures:** In case of fire, use self-contained breathing apparatus and full protective equipment - all fires liberate toxic gases.

## Exposure Controls and Personal Protection:

Respiratory Protection: None required

Skin Protection: No precautions required

Eye Protection: None required

Exposure Guidelines: None established

Engineering Controls: None required

## Physical and Chemical properties:

Vapor Pressure (mm Hg): N/A Boiling Point: N/A

Vapor Density (air = 1): N/A Melting Point: N/A

Appearance and odor: N/A Reactivity of water: N/A

Specific Gravity (H 0=1): N/A Solubility in water: N/A

## Stability and Reactivity:

Stability: N/A

Conditions to avoid: Fire or Excessive Heat

Incompatibility: None

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur.

## 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. **Warning** this product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. This product contains up to 0.1% Toluene in the adhesive.

## Toxicological Information:

Carcinogen Status: NTP: NONE IARC: NONE OSHA: NONE

## Ecological Information:

No Data Available

## Transport Information:

TRANSPORTATION AND HAZARDOUS MATERIALS  
DESCRIPTION: Not a hazardous material for DOT shipping.

## Disposal Considerations:

Waste Disposal:  
Dispose of in accordance with Local, State and Federal regulations.

## 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.