

# Tamper Evident Durability Characteristics

## Product Description:

Camcode's Tamper-Evident labels are constructed of a 2.0-mil gloss white polyester face stock, over-laminated with a 1.0-mil clear polyester film, and a 0.7-mil high performance pressure-sensitive adhesive. "Void" message will be left on both the label material and product surface when the label is removed. This label has good resistance to general purpose and household cleaners, mild acids, oil and water. The adhesive is designed to permanently bond to high and low surface energy plastics, stainless steel, glass, and nylon. Expected exterior life is up to two years.

PRODUCT DATA	VALUE	TEST METHOD
<b>Physical Properties</b>		
Thickness (Mils [microns])	Film: 2.0 Adhesive: 0.7 Liner: 3.1	ASTM D 3652
Dimensional Stability (%)	No shrinkage observed	Applied Shrinkage: 24 hour dwell time on aluminum panel then 24 hours at 160°F (71°C)
Chemical Resistance (non printed stock) Household Cleaners: Mild Acid: Oil: Water:	No effect on topcoat or adhesive No effect on topcoat or adhesive No effect on topcoat or adhesive No effect on topcoat or adhesive	ASTM D 896 (Modified for numbers of cycles and cycle time)
<b>Adhesion Properties</b>		
Ultimate peel from various surfaces	Oz/in (N/m) average	ASTM D 903 (Modified for 72 hour dwell time)
Stainless Steel:	102 (1122)	
Acrylic:	116 (1276)	
Glass:	101 (1111)	
Polypropylene:	36 (396)	
Expected Shear	50 Hours	ASTM D 3654 Method A a. 1 hour dwell b. 1 square inch surface c. 4 pound load
Tack	990 gm/sq. cm.	ASTM D 2979
<b>Expected Exterior Life:</b>	Up to Two Years	
<b>Service Temperature Range:</b>	-40°F to 250°F (-40°C to 121°C)	
<b>Minimum Application Temperature:</b>	50°F (10°C)	
<b>Storage Stability:</b>	Two years when stored at 72°F (21°C) and 50% relative humidity	

\*Camcode® is a registered trademark of Horizons Incorporated.

Note: Users must test products in the specific environment anticipated.  
Camcode does not warrant performance of its materials in any environment.

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