

## 3912G – Polymeric Protective Laminate

### Description

3912G is a high gloss calender PVC film for protecting digitally printed image. It provides protection from damaging from UV radiation, scratch and abrasion. Moreover, it offers enhanced colors and durability.

### Features

- Protecting from UV rays, scratch and abrasion
- Long durable calendered film (5 years)
- Excellent printing performance
- Enhancing color of image
- Excellent weather resistance: Solvent Based Acrylic Adhesive
- Removability LP3912G: permanent
- Removability LP3942G: removable

### Areas of use

- Solvent inkjet printing: Vutek, Arizona, Mimaki, Mutoh, Roland, DGI etc.
- Indoor and outdoor protection of large format digital image

### Fabrication

#### Laminating

No heat is required. It can be used most squeeze roll laminators. Keep the film flat during lamination.

### Compatible Products

- Compatible with the base films LD3910/391T, LD393T, LD395T, LD3911, LD3920, LD3950 and LD4910.

### Characteristics

Item	Description
Film	3.6 mils Transparent film with gloss finish
Thickness	4.8 mils with adhesive ( $\pm 10\%$ )
Adhesive	Acrylic based pressure sensitive (Solvent based)
Adhesive color	Clear
Liner	Double sides PE coated paper(135g/m <sup>2</sup> )
Application surfaces	Flat, rounding etc.
Application temp.	$\geq 10^{\circ}\text{C}$ (18 to 25 $^{\circ}\text{C}$ optimum)

### Durability

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Durability is based on field experience and exposure tests in South Korea. Outdoor durability is 5 years when properly processed and applied (unprinted film vertical exposure).

#### Accelerated: 2000 hr minimum

As determined in an Atlas Weather-o-meter conforming to ASTM G-26-77, section4, using the standard dual cycle of 102 minutes of light at 145°F (63°C) and 18 minutes of water spray at 145°F (63°C)

#### Accelerated: 1000 hr minimum

As determined in a QUV weathering tester using UV light (UVB 313 bulbs) at 145°F (63°C)

### Shelf Life

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Shelf life is 1 year from factory shipment.

### Storage condition

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Free from excessive moisture, temperature, direct sunlight (20°C x 50 % R.H.).

### Physical Properties

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Property	Metric units	Test Method
Thickness (Including adhesive)	120 µm ± 10	Micrometer
Tensile strength	≥ 1.8 kg/cm <sup>2</sup>	ASTM 882
Elongation	≥ 100 %	ASTM 882
Peel adhesion (24hrs)	1,600 g/in	180 peeling PSTC-1
Service temp. range	-45°C ~ 82°C	Film applied Al panels 24 hrs prior test
Application temp	≥ 10°	18 to 25°C optimum, on clean substrate
Opacity	Tt > 90	Haze Meter (Tt: Transmission)
Gloss	70 ↑	at 60, in Machine Direction
Release liner thickness/weight	0.14 mm / 130 g/sqm	

**Chemical Performance (Immersion)**

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The film shows no noticeable effects after immersion in the following fluids for the stated time periods. Condition constituting film failure occurs only after an additional extended exposure time.

Transmission oil	168 hrs minimum
Gasoline (Unleaded)	75 hrs minimum
Distilled water	168 hrs minimum
Saltwater	400 hrs minimum
Ethylene glycol 50 % solution	168 hrs minimum

**Warranty**

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