

**Laminating Film for Protecting Digitally Printed Images
LP3912G &M (Gloss & Matte)**

Dated: 5/30/08

Description:

LP3912 G & M is a gloss & matte calendered PVC lamination film for protecting digitally printed images. It provides protection from damaging UV radiation, scratch and abrasion. Moreover, it offers enhanced colors and durability & the film is digitally printable.

Advantage:

- Protecting from UV rays, scratch and abrasion
- Long durable calendered film (5years)
- Excellent printing performance
- Enhancing color of image
- Excellent weather resistance : Solvent Based Acrylic Adhesive
- Variable Width : 30” ,54” , & 60”

Areas of use:

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

Characteristics:

Item	Description
Film	3.6 mil Transparent film with gloss & matte finish
Thickness	4.2 mil with adhesive (± 10 %)
Adhesive	Acrylic based pressure sensitive (Solvent based)
Adhesive color	Clear
Liner	Double sides PE coated paper (83#)
Application surfaces	Flat, rounding etc
Application temp.	≥ 10□(18 to 25□ optimum)

Durability:

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: 2000hr minimum

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

Accelerated: 1000hr minimum

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

Shelf Life:

Shelf life is 1 year from factory shipment

Storage condition: Free from excessive moisture, temperature, direct sunlight (20□ x 50% R.H)



Physical Properties:

Property	Metric units	Test Method
Thickness (Including adhesive)	4.2 mil ± 10	Micrometer
Tensile strength	≥ 1.8kg/cm ²	ASTM 882
Elongation	≥ 100%	ASTM 882
Peel adhesion(24hrs)	1,600g/in	180 peeling PSTC-1
Service temp. range	45° ~ 82°F	Film applied Al panels 24hrs prior test
Application temp	≥ 10° C	18 to 25° C optimum, on clean substrate
Opacity	Tt >85%	Haze Meter (Tt: Transmission)
Gloss	≤ 10%	@60, in Machine Direction
Release liner thickness/weight	0.14mm/130g/sqm 83#	

Fabrication

Laminating:

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

Chemical Performance (Immersion):

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

Warranty:

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