

Digital Solvent Inkjet Film
VIZUON Print LD3880G Ultra High Tack Print Film

Dated: 06/15/09

Description:

LD3880G is a white, opaque, glossy PVC calendered print film with an ultra high tack pressure-sensitive adhesive designed for solvent inkjet printing. This product is designed to meet high resolution printing needs with excellent results.

Advantages:

- Ultra high tack, permanent pressure-sensitive adhesive
- Superior print performance and color quality
- Up to 1 year durability
- Excellent weather resistance: solvent-based, acrylic adhesive (permanent)
- Release liner: 83# super-flat, double-side PE-coated paper

Areas of use:

- Solvent inkjet & Screen printing: Vutek, Arizona, Mimaki, Mutoh, Roland, DGI, etc.
- Select smooth to rough wall surfaces like concrete, block, marble, tile etc.
- Application: smooth concrete, brick-type walls, patterned tile, etc.
(“Smooth”: texture of substrate similar to fine sand paper with no surface variation)

Characteristics:

Item	Description
Film	3.2 mil opaque film
Thickness	5.1 mil with adhesive (±10%)
Adhesive	Acrylic-based, pressure-sensitive (solvent-based)
Adhesive color	Clear
Liner	Double-side PE-coated paper- 83# (135 g/m ²)
Application surfaces	Smooth & Rough surfaces with minor contours
Application temp.	≥ 50°F (64.4°F to 77°F optimum)

Durability:

Durability is based on field experience and exposure tests in South Korea. Outdoor durability is 1 year (unprinted film vertical exposure) when properly processed and applied. Recommended laminates are LP3812 Gloss or Matte laminate.

Expected Performance Life

Application Surface	Surface Texture	Warranty
Unpainted Concrete	Smooth (fine sand grain)	Up to 1 Year
	Rough	3~6 Months
Unpainted Cement	Smooth (fine sand grain)	Up to 1 Year
	Rough	3~6 Months
Tile	Smooth	Up to 1 Year
	Patterned tile	6 Months
Painted Surface	Smooth	Up to 1 Year
	Rough	6 Months
Marble	Smooth	Up to 1 Year
	Rough	6 Months
Metal Surface	Smooth	Up to 1 Year

*** Legend**

- 1) **Smooth:** Flat and smooth surface allowing the entire surface to be in contact with film.
- 2) **Rough:** Uneven and corrugated surface or embossed surface which keeps parts of the surface from being in contact with

film; requires extra attention to lay down the film to the surface. The deepest crevices in the surface must be less than 1/8" deep for the film to work properly.

The Performance Life of the product is influenced by

- Installation technique: Improper installation techniques may cause edge curling, lifting and/or poor adhesion.
- Adhesion on outdoor surfaces: This film may not last its full durability term if the graphic is removed easily from the application surface. (The customer must check the adhesion level before applying the graphics.)
- Outdoor graphics exposed to water/rain. Water can be trapped behind graphics applied outdoors, leading to lifting of images.
- Crevices on surface: The deepest crevices in the surface must be less than 1/8" deep for the film to work properly.
- Freezing and thawing cycles: If the film is applied to outdoor walls, which means it is exposed to freezing and thawing cycles, moisture can be trapped between the wall and the film resulting in the graphics lifting as well as forcing the surface to peel, pop out or flake off.

The product performance life generally follows the table above; however, the installation environment, different application surfaces, and/or severe freezing & thawing cycles can shorten the warranty period of this product.

Application Guide

- Before application, carefully consider the surface area to determine whether the Ultra Tack adhesive is adequate for that application. One needs to consider the initial tack required, possible damage to application surface upon removal of the film, and the duration of application. Unsound substrate, paint surface, and/or textured wall board & wallpaper may be damaged upon removal of graphic.

Always test the film on an inconspicuous area of the target surface for adhesion and adhesive transfer before undertaking a job. If the film is to be exposed to snow or rain, make sure that the edges are sealed as the adhesion / bond may weaken. If applying to a painted surface, the paint must be cured and set on the surface (not peeling off when scratched).

-The application surface must be cleaned one day prior to application and wiped clean for dust once more just before application. In case of rough surfaces, the crevices must also be brushed and cleaned out, then vacuumed clean. The surface must be completely dried before application.

- Apply the film using a felt squeegee. When applying to a rough surface, also use a soft roller and a heat gun (torch) and, if needed, a rivet brush, applying at a steady speed of 2" per second at temperature of 752~842°F (400~450°C). Eliminate and work out any bubbles that may form during application.

Removal Guide

- Permanent adhesives are not designed to be removed easily. It can be removed, but with some difficulty. Also, it can damage the substrate. Even though it is removed, it may leave more than 50% of its adhesive as residue. Some substrates are not designed to have graphics applied and removed, such as unpainted wallboard, some flexible materials, and special coated products such as anti-reflection and scratch resistance products. In that case, film removal may damage the substrate. If the application surface is concrete that is not thoroughly cleaned or has defects (like cracks or crevices), the dust or sand that remains on the application surface can be detached from the surface when removing the film.

- The film becomes brittle in cold weather (below 50°F). Brittleness causes the film to break into small pieces during removal. Always keep the removal temperature above 50°F. Generally, higher temperatures make the removal job easier.

-Applying graphics to newly painted substrates – meaning that the painted area has not had enough time to fully cure – makes removal difficult. Painted surfaces must be thoroughly dried and cured in accordance with the paint manufacturer's recommendations. Uncured and unsound painted substrate may be damaged by removing the Ultra Tack adhesive.

- Heating the film using heat sources, like a heat gun or a torch, eases removal of the film. Heat softens the adhesive, reducing the removal force needed. Raise the film temperature to 158~176 °F. Be sure not to burn or damage the film and/or the substrate by using excessive heat.

- Mild solvents (like IPA) or adhesive removal products can be used to remove adhesive residue. Some chemicals, however, may damage the substrate or its finish. Always test the chemical in a small, inconspicuous area, allowing the chemical to remain on the residue for the recommended time. Remove the residue and check for substrate damage. Below are the steps for removing residues.

1. Test the solvent or remover (referred to as “remover” below) by applying it to an inconspicuous area to confirm that it is adequate for the substrate.
2. Allow the remover to penetrate the adhesive for the prescribed time.
3. Remove the softened adhesive by scraping with a rivet brush or scraping tool.
4. Pick up the loosened adhesive with a cloth wet with remover.
5. Repeat steps 2 thru 4 as needed
6. After the residue is fully removed, clean the entire surface.
7. To keep the substrate clean, wash it with a solution of detergent and water.

Shelf-Life:

Shelf-life is 1 year from factory shipment.

Storage condition: Free from excessive moisture, extreme temperatures, direct sunlight (68°F x 50% R.H)

Physical Properties:

Property	Metric Units	Test Method
Thickness (including adhesive)	5.1 mil ±10%	Micrometer
Tensile strength	≥ 1.8kg/cm ²	ASTM 882
Elongation	≥ 100%	ASTM 882
Peel adhesion (24hrs)	≥ 3,000g/in	180 peeling PSTC-1
Service temp. range	-49°F ~ 179.6°F	Film applied Al panels 24hrs prior test
Application temp.	≥ 50°F	64.4 to 77°F optimum, on clean substrate
Opacity	Tt ≤ 10	Haze Meter (Tt: Transmission)
Gloss	70 ↑	@60, in Machine Direction
Release liner thickness/weight	0.14mm/135g/m ²	

Fabrication:

Printing

The film can be printed with solvent-based & screen inks. For outdoor durability, it must be printed with a pigmented ink in accordance with the supplier recommendations.

Warranty:

The information provided on this sheet represents typical properties and does not constitute a specification. No liability will be accepted for errors and omissions and in no circumstances shall LG Hausys, Ltd. be liable for any loss or injury arising directly or as a consequence of the publication of this data sheet. All LG Hausys vinyl sold are subject to our conditions of sale. LG Hausys also retains the right to change sizes and specifications of products without prior notice.