Technical Data Sheet

Laminating Film
CL50CY

Revision: 1 (CVNA)
Date: 25 June 2024
Author: NR

CL50CY is a clear, gloss cast PVC laminating film featuring a polyester liner.
CL50CY laminating film is intended for lamination onto Contra Vision® perforated self-adhesive vinyl to prevent water and dirt filling the perforated holes and impairing through vision. This film also offers UV protection, increased image life and an attractive gloss finish.
We recommend using AutoGraph™ perforated window film which has air egress features for an improved application method, particularly for curved windows and transit applications.

Typical Properties	
PROPERTY	**VALUE**
Face film	Clear gloss cast PVC
Film thickness	2 mil(50µm)
Hole Pattern	N/A
Adhesive	Transparent, permanent, solvent polyacrylate
Liner	Single-sided silicone-coated polyester
Liner weight	
Application temperature	
Peel adhesion 24 hours	
Peel adhesion 1 month	
Removability	
Durability	3 years
	Durability stated is for unprinted and untreated material correctly applied to an inert, vertical substrate subject to Mid-European weathering conditions. This refers to the overlaminate itself, and not any extra durability that it gives the printed image.
Shrinkage	
Service temp	
Shelf life	2 years Under ordinary condition at temperature of 72°F (22°C) and relative humidity of 50-55%
Other info	Minimum lamination temperature: 50°F (+10°C)

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Regulations
N/A

Substrate Recommendations
N/A

Application Recommendations
General Guidance
1: Outgassing. Ensure that your printed perf has had time for the applied ink to out-gas and that it has dried or cured sufficiently before you laminate it. Pay particular attention to storage condition while print is outgassing and, again, refer to ink manufacturers' recommendations.
2: Nip Pressure - Laminator Setting. Sufficient nip pressure must be maintained during laminating to ensure that the laminating film is adhered to the printed graphic it protects. Ideal pressure is the minimum that's required to achieve complete adhesion of the laminate to the printed film it protects. Incomplete adhesion is indicated by laminate that's simply not stuck to the film or, more subtle indications such as 'silvering.' Silvering is noticeable particularly in darker areas of the print - instead of presenting as a deep black colour, the area may have silver-like patches indicating that the adhesive has not fully contacted the ink and stuck to it.
3: Back-Brake Pressure - Laminator Setting. Back-brake pressure puts an unwinding resisting force on the laminating film, and not on its liner, in order to keep the film flat and free of creases before it contacts the printed perf and moves into the laminator's nip rollers where the two are then stuck together. If the back-brake force is excessive, the laminating film can stretch and will try to recover after it's adhered. This can lead in turn to curling of the whole laminated graphics, in either direction, and possible failure of the applied result. Use the minimal back-brake force required to get a crease-free result. Note: Excessive back pressure on the laminate can cause 'necking' and this may result in the curling inward from its edges across the material.
4: Storing and Transporting Laminated Perforated Graphics.
Laminated perforated films, like any other laminated printed films, should be stored flat prior to application if possible. In situations where it's not possible to store prints flat, they should be loosely wound with the printed side facing outwards, preferably allowing the film to 'settle' to a non-tensioned state.
Precautions
Observe the following before attempting to apply laminated perf:
1: Laminated perforated graphics must be applied dry. Do not use any slip-solutions, surfactants including soapy water, or any other proprietary or self-mixed 'application solutions. Dry application is the only approved application method for laminated perforated graphics.
2: Ensure that the substrate temperature is within the application limits noted for the perforate material being used.
3: Ensure that an application margin around the whole perforated graphic is allowed. We suggest about 3mm or 1/8th of an inch. Trim applied graphics back to establish this margin. If Edge Sealing Tap is used, allow a bigger margin and apply the tape so that it too is at least 3mm or 18th of an inch from the windows' edges.
Technique
1: Trapped air. It is possible to trap air under laminated perforated graphics. To the best extent possible, expel trapped air by carefully peeling back the laminated perforated film to the site of the trapped air and then re-adhere it carefully using the application squeegee.
2: Squeegee action. Using a hard-edged squeegee gently is preferable to over-energetic use of a soft edged squeegee. Excessive squeegee pressure, direct to the surface of the laminate, can push the laminating film into the perforation where it will remain due to negative air pressure in the perforation void. TIP - Use a piece of waste liner to protect the film - squeegee through the liner which must remain static, silicone side up, on the surface of the laminated film. This will prevent the squeegee from pushing the laminate into perforation voids. Do not use heat when applying the graphics.
3: Application stresses. Take care not to stretch the laminated perforated film while applying it. Establishing an initial contact with the window and building pressure to achieve complete adhesion is the preferred method.

Printing Recommendations
N/A

Environmental
Please refer to our website for further information on how our products conform to REACH regulations.

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