TECHNICAL DATA SHEET

Contra Vision® *Performance*™ CLPAC20D	**Page: 1/2**
	Revision: A
	Date: 23/11/2012
	Replaces: NONE
	Authors: RAS

1. Identification of the product

1.1 Commercial product name: Contra Vision® *Performance*™

1.2 Product Reference number: CLPAC20D

1.3 Supplier:

Contra Vision North America, Inc.
3330 Cumberland Blvd
Suite 500
Atlanta, Georgia 30339
USA
Tel. +1 770-993-6262
E-mail: technical@contravision.com
Web: www.contravision.com

2. Description

Contra Vision® *Performance*™ CLPAC20D is a Clear perforated self-adhesive vinyl with 20% transparency and a removable, pressure-sensitive adhesive, featuring a clear Additional Liner.

With the image design printed reverse-read and over-printed with white and black layers, this film applied to the inside of a window, allows an image to be seen on the outside of a window while allowing viewing through from the inside.

With the image design printed reverse-read and over-printed with a translucent white layer, applied to the inside of a window, this film during daylight allows an image to be seen on the outside of a window while allowing viewing through from the inside, and during the hours of darkness allows the image to be backlit so that it can still be seen on the outside. A ghost reverse image of the print can be seen from the inside, although the mind will concentrate on the outside view and not the ghost image.

This promotional film is intended for UV curing inkjet printing.

3. Use

Some countries have laws or regulations requiring minimum light passage that may limit or preclude the use of this product on vehicle windows. The user is responsible for determining and complying with all applicable standards.

This product is not recommended for use on glass with coatings such as anti-reflective, self-cleaning and scratch-resistance, which may be damaged during film removal. Not to be applied to fresh paint or ink, polycarbonate, rubber, plastic moldings and certain PVCs. In case of doubt, please test prior to final application.

This product is not recommended for use around a sharp (90°) angle where there is a limited area either side of the angle.

Additional Liner construction is recommended for use with UV curing inkjet printers. Depending on the brand of ink and density of the print, "bridging" can occur over the perforated holes after removal of the Replacement Liner, in relatively dark areas of a design. This is normally eliminated with Additional Liner. However, care needs to be taken if printing white and black layers over the design, as hole bridging can still occur with some brands of ink and the adhesive can be damaged by excessive curing with some brands of printer. Pre-testing is essential.

Clear Additional Liner construction allows the image design to be seen on the liner, even though the face of the image design is covered with white and black layers.

After printing the ink must be thoroughly dry, including in the perforated holes in order to avoid any contamination, particularly during lamination.

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Final clean with soap and water. Rinse and dry glass after cleaning. Use a dry application method. The film must not touch the rubber window molding. This minimizes the chance of the graphic absorbing water that may collect in the window edge.

If two graphic panels meet side by side on a window, carefully trim the film so that the panels meet and form a butt seam. Do not overlap the panels.

The graphics should not be washed within 24 hours of application to allow the adhesive to reach its ultimate strength.

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4. Typical Properties

PROPERTY	VALUE	NOTES
Face film	Clear polymeric calendered pvc	
Thickness of face film	180µm (7.1 mil)	±10 µm (±0.4 mil)
Hole pattern	20% transparency 1.50mm (0.059") diameter holes 3.19mm (0.125") between hole centres	Face film, adhesive and paper part of liner
Adhesive	Transparent, solvent polyacrylate	
Adhesive coating weight	28g/m^2 (0.83 oz/yard^2)	±3g/m^2 (±0.09 oz/yard^2)
Liner	Perforated double-sided poly-coated paper with Contra Vision® *Performance*™ printed branding, laminated to clear polyprop. film	Additional Liner
Liner weight after perforating	123g/m^2 (3.6 oz/yard^2)	±5g/m^2 (±0.15 oz/yard^2)
Minimum application temperature	+5°C (41°F)	Air and substrate
Peel adhesion 24 hours	4N/25mm 36oz/in	Printed film on glass, typical value
Peel adhesion 1 month	4N/25mm 36 oz/in	Printed film on glass, typical value
Removability	Minimum 6 months	Clear removability without adhesive residue at 23°C to 25°C (73°F to 77°F) and RH of 50-60%
Durability	3 years	Durability stated is for unprinted and untreated material correctly applied to an inert, vertical substrate subject to Mid-European weathering conditions. Some printing inks and drying or curing regimes may reduce the expected lifetime of the printed graphic. Please consult your ink manufacturer for guidance. Incorrect application methods, inadequate window cleaning and preparation and incompatible window treatments may reduce the expected lifetime of the applied material whether printed or unprinted, overlaminated or unlaminated. Mechanically sustained damage, chemical damage and UV-degredation to printed, unprinted, laminated or unlaminated material may also reduce expected durability. All perforated window films are especially vulnerable to damage along the edges and corners, which may lead to premature failure. Typical application life is up to eighteen months.
Shrinkage	x direction 0.05%, y direction 0.32%	
Service temperature	-25°C to 65°C (-13°F to 149°F)	
Shelf life	12 months	Under ordinary condition at temperature of 22℃ (72°F) and relative humidity of 50-55%