



## Performance HD Clear

*Clear Perforated Window Films are designed to be applied to the inside of a window enabling cold weather applications and are the ideal solution for installations with limited external access.*

Our EXCLUSIVE **Performance HD Clear** is a high-definition 60/40 perforated window film for one-way vision graphics, manufactured to the high specification of our Contra Vision® *Performance*™ range.

**The 1mm holes are 60% smaller than standard one-way vision products.** These micro-perforations allow for greater detail and finer text, making it the ideal product for graphics featuring detailed product imagery. Along with delivering the clearest and sharpest images to one side there is a noticeably improved see-through compared to standard 60/40 transparency film.

*Performance HD Clear* is suitable for all ink types although white ink is required. The design is printed reverse-reading and then backed up with a layer of white ink followed by a layer of black ink.

Please refer to the printing guidelines on our website on how to produce effective see-through graphics for inside application.

### Product Specification

Product name	<i>Performance HD Clear</i>
Product code	CLPAC40HD
Transparency	60/40
Application	Inside
Roll width	54 inch
Roll length	30ft / 150ft
Primary uses	Building Wraps, Retail Promotions, Fine detail prints

“ Applied inside graphics are protected from vandalism, rainwater and street dirt. ”



View from outside



View from inside

Product Name:	<b>Performance™ HD Clear</b>	Page:	1/2
Product Reference:	<b>CLPAC40HDF</b>	Revision:	1 (CVNA)
		Date:	26 July 2019
		Replaces:	None
		Authors:	RAS

## Description

Performance™ HD CLPAC40HDF is a Clear perforated self-adhesive vinyl with 40% transparency; and a removable, pressure-sensitive adhesive, featuring a clear Universal Liner. For inside applied one-way vision graphics, print the image design as reverse-read and over-print with white and black ink layers.

For inside applied backlit see-through graphics, print the image design as reverse-read and over-print with a translucent white ink layer. This allows an image to be seen on the outside of a window during the day 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 features a part-perforated paper/plastic liner and is intended for UV-cure, solvent, 'eco-solvent' and latex inkjet printing, and screenprinting.

Typical Properties	
PROPERTY	VALUE
Face film	Clear polymeric calendered pvc
Film thickness	7.1 mil ± 0.4 mil (180µm ± 10 µm)
Hole pattern	40% transparency; 0.04" (1.0mm) diameter holes
Adhesive	Transparent solvent polyacrylate 1.23 oz/yard <sup>2</sup> ±0.09 oz/yard <sup>2</sup> (35g/m <sup>2</sup> ±3g/m <sup>2</sup> )
Liner	Part-perforated Universal Liner. Perforated double-sided poly-coated paper with Contra Vision® Performance™ printed branding, laminated to clear polypropylene film.
Liner weight	3.95 oz/yard <sup>2</sup> ±0.18 oz/yard <sup>2</sup> (112g/m <sup>2</sup> ±5g/m <sup>2</sup> ) after perforating
Application temperature	Minimum: 39°F (4°C ) air and substrate
Peel adhesion 24 hours	14.4 oz/in(4N/25mm) Printed film on glass, typical value
Peel adhesion 1 month	18 oz/in (5N/25mm). Printed film on glass, typical value
Removability	Minimum 12 months clean removability without adhesive residue at 73°F to 77°F (23°C to 25°C) 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-degradation to printed, unprinted, laminated or unlaminated material may also reduce expected durability. Typical application life is eighteen months. All perforated window films are especially vulnerable to damage along the edges and corners, which may lead to premature failure.
Shrinkage	x direction ≤0.6%, y direction ≤0.6% FTM14
Service temp	-13°F to 149°F (-25°C to 65°C)
Shelf life	3 years Under ordinary condition at temperature of 72°F (22°C) and relative humidity of 50-55%
Other info	

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## Regulations

Some countries and regions 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.

## Substrate Recommendations

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.

## Application Recommendations

Apply the film using a dry application method. Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination. Final clean with soap and water. Rinse and dry glass after cleaning.

Not to be applied to fresh paint or ink, polycarbonate, rubber, plastic mouldings and certain PVCs. In case of doubt, please test prior to final application.

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

The film must not touch the rubber window moulding. 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.

Observe the minimum application temperature, and the graphics should not be washed within 24 hours of application.

## Printing Recommendations

Universal Liner construction, correctly printed, eliminates the “bridging” over the perforated holes that can occur with UV curing inkjet printers and Replacement Liner construction. 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. Please refer to the Printing Guide.

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.

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