TECHNICAL DATA SHEET - LAMINATE - PERMANENT ADHESIVE

PCCARBON

The film is composed of 125-µm, transparent, structured, cast PVC, which is coated with a pressure-sensitive, acrylic adhesive. Designed to be cold laminated on mass-coloured or digital printing films; it can also be directly applied to smooth 2D or moderated 3D surfaces. Glossy carbon effect.

FILM FEATURES:

	Indicative value	
• Thickness (µm):	125	
	Average values	Standard
• Tensile strength (N/25 mm):	min. 15	HEXNFX41031
• Elongation at break (%):	min. 50	HEXNFX41031
• Shrinkage 168 hours at 70 °C (158 °F) (mm):	< 0.6	HEXRET001

LINER:

- Silicone-coated PE paper 145 g/m², with grey "THE CAST by HEXIS" print.
- Stable under hygrometric variations.

ADHESIVE PROPERTIES:

(Measured average values at publication of the technical data sheet)

	Average values	Standard
• Peel strength test 180° on glass (N/25 mm):		HEXFTM001
after 20 minutes of application	15	
after 24 hours of application	17	
• Initial tack (N/25 mm):	21	HEXFTM009
• Release: (N/25 mm):	0.5	HEXFTM003

- Resistance to solvents: the adhesive is resistant to most chemicals (alcohol, diluted acids, oils).

ADHESIVE:

- Solvent-based acrylic adhesive.
- Immediate and permanent adhesion.
- Dry application method.

USER'S INSTRUCTIONS:

- UV protection.
- For modifying/improving/protecting:
    - a plotter or wrap vinyl: apply the PCCARBON film to unstructured films only using a cold laminator or via direct application. The compound can be cut using a plotter, except Super Chrome films (see technical data sheets of Super Chrome films). After cutting, it is possible to transfer with the HEX860 tape.
    - a digital printing film: apply the PCCARBON film to solvent, eco-solvent, latex or UV inkjet printed films only.
    - an already painted substrate: apply to undamaged original paintwork only. If the paintwork is not original and/or damaged, the application and the removal are at the judgement and risk of the installer.

For concave, convex or slightly undulated surfaces, it is recommended to carry out an application test in order to make sure of the film's deformation limits.

- Recommended minimum application temperature: +10 °C (+50 °F).
- Operating temperature range: -40 °C to +90 °C (-40 °F to +194 °F).
- For film cleaning, only use a non-abrasive sponge or soft cloth with soapy water.

OPERATING RECOMMENDATIONS:

- Before applying this laminate to a HEXIS digital printing film, which has been printed with solvent inks, it is recommended to respect the following optimal drying time for the inks:
    - 48 hours if the printed film is cast,
    - 24 hours if the printed film is calendered.
- Given the strong structure of the PCCARBON film, some bubbles may appear underneath the film during lamination. The appearance of the compound can be improved by optimising the lamination parameters:
    - Ensure maximum pressure between the lamination cylinders.
    - Set a slow lamination speed.

Advice: In all cases, read the laminating machine's instructions carefully and carry out a preliminary application trial.

- After installation, the final surface aspect can be improved by heating the film to +60 °C (+140 °F) and by applying it using a ROLLRIV foam roller.

STORAGE:

- Shelf life (before application):

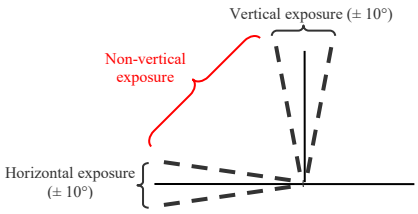
  The shelf life of this film is one year when stored upright in its original packaging in a dust-free environment at a temperature ranging from +15 °C to +25 °C (+59 °F to +77 °F) with relative humidity of 50 %.

DURABILITY: (Central European climate)

- Vertical outdoor exposure, upon substrate:
  Without mechanical stress: up to 3* years.
  With mechanical stress: depends on the type and frequency of the stresses.

*Time during which the film retains a correct surface finish, from a conventional viewing distance. (A slight and gradual change in colour and gloss is a natural and inevitable phenomenon inherent in the natural breakdown of the materials).
Note: The durability indicated in this document:

- concerns only the laminate and not the finished visual or graphic.
- is inherent to an upright position of ± 10° and to the product's geographical exposure position. Any other position accentuates climatic influences and an alteration in gloss or colour, or even a slight dusting may appear. Southern exposure, with a 45° inclination may divide the durability of the film by 2, and horizontal exposure by 2.8. Application to the vehicle bonnet is particularly severe, due to the horizontal exposure and the heat from the engine.
- is confirmed by UV ageing tests and vertical natural outdoor weathering.



- Indoor exposure, upon substrate: up to 5 years.

This durability may vary depending on frequency and type of cleaning / mechanical stress (friction, impacts etc.) to which the film is exposed.

To find the indicative durabilities of the films for any other exposure and geographical area, please refer to the "Conversion rules for indicative durabilities according to the geographical area" chart available under Durability, on the "Professionals" pages on our site www.hexis-graphics.com.

NOTES:
Due to the great variety of substrates and the growing number of new applications, the installer must check the suitability of the medium for each application. The measuring methods for the standards quoted above served as the basis for the development of our own measuring methods, which are available on request. Please feel free to contact us to get the latest instructions in use. All of the published information is based on measurements regularly performed in the laboratory. The published information does not however constitute a binding guarantee. The seller cannot be held liable for indirectly related damages and assumes no liability for claims that are higher than the replacement value of the purchased product. All specifications are subject to potential changes without prior notice. Our specifications are automatically updated on our website www.hexis-graphics.com.