



TECHNICAL DATA SHEET - WRAPPING

HX20000 Series

Range of products consisting of a 100- to 110- μm (upon reference), very high performance, multilayered cast vinyl, which is coated with a pressure-sensitive, solvent-based, acrylic adhesive. Structured adhesive for faster application and easier air egress. Specially designed for vehicle full wraps and strongly deformed surfaces. Gloss or matt surface finish.

FILM FEATURES:

	<u>Average values</u>	<u>Standard</u>
• Thickness (μm):	from 100 to 110 (upon reference)	
• Tensile strength (N/25 mm):	min. 15	HEXNFX41021
• Elongation at break (%):	min. 90	HEXNFX41021
• Shrinkage (mm) after 168 hours at 70 °C (158 °F):	< 0.4	HEXRET001

LINER:

- Embossed and silicone-coated PE paper of 145 g/m² with grey “THE CAST by HEXIS” imprint
- Stable under hygrometric variations

ADHESIVE PROPERTIES:

(Average values measured at data sheet editing time)

	<u>Average values</u>	<u>Standard</u>
• 180° peel strength test on glass (N/25 mm): after 20 minutes of application	12	HEXFTM001
after 24 hours of application	14	
• Initial tack (N/25 mm):	16	HEXFTM009
• Release (N/25 mm):	0.3	HEXFTM003

- Solvent resistance: the adhesive is resistant to most chemical agents (alcohol, petrol, diluted acids, oils and fuels).

ADHESIVE:

- Solvent-based, acrylic adhesive
- Structured adhesive for faster application and easier air egress
- Immediate and permanent adhesion; best after 24 hours of film application.
- Dry application

USER'S INSTRUCTIONS:

- Minimum application temperature recommended: +15 °C (59 °F). Preferably apply at between +20 °C and +25 °C (+68 °F and +77 °F).
- Operating temperature range: from -40 °C to +90 °C (from -40 °F to +194 °F)
- Conformable product, only suitable for rolling devices and rolling vehicles.
- In the case of already painted substrates, self-adhesive media must only be applied onto undamaged original paintwork. If the paintwork is not the original and/or is damaged, the application and the removal are at the installer's own judgement and own risk.
- Because of their structure, the glitter and metallised gloss films will slightly mattify if stretched. In order to obtain a uniform appearance and therefore avoid demarcations, it is necessary to heat slightly (+40 °C / +104 °F) and stretch the entire film during application.

Advice: To achieve optimal gloss for applications with glitter films, HEXIS recommends the use of our super-glitter films of the HX30000 range.

- Films with matt finish are fragile products, sensitive to scratching and marking, and should be handled with care. If any traces remain after application, they can be attenuated by slightly heating (max. 90 °C / 194 °F) the surface with a heat gun.
- Because of their particular structure, matt films are more subject to dirt than gloss PVC films. This type of film may require more frequent and/or longer cleaning. The cleaning can be difficult for films exposed to a particularly dirty environment (e.g. race cars, rallye cars...).

Note: To ensure optimum opacity, the films in the HX20000 range contain a high concentration of pigments. In certain cases, when cleaning the film, coloured traces may appear on cleaning cloths. This is explained by the removing of excess pigment from the surface of the film. That operation will not in any way impair the appearance and the durability of the films.

This effect is more obvious if using cleaning products containing solvents.

RECOMMENDATIONS:

- Recommendation (*whenever possible*): Sunlight and prolonged exposure to weather and pollution may provoke ageing of the film⁽¹⁾. A vehicle wrapped with HX20000 film must be protected from the sun and weather (rain, dew...) as often as possible: during the day, park in the shade; at night, park the car in a closed garage (otherwise, cover the vehicle with a loose protective cover).
- The colour of the films is controlled by HEXIS in order to ensure faithful reproduction of the colour tints. Nevertheless, should your project require the use of several rolls of a single colour reference, HEXIS recommends to use only one batch number of this colour.
- For further information on the application method of the HX20000 film, please refer to the Application Guide available on the "Professionals" pages, category "Full wrap" on our website at www.hexis-graphics.com.

STORAGE:

- Shelf life (before application):

The shelf life of this film is 2 years if it is stored in its unopened original packaging at a temperature ranging from +15 °C to +25 °C (from +59 °F to +77 °F), with relative humidity between 30 % and 70 %.

INDICATIVE DURABILITIES:

- The pigments (colouring) of the PVC influence the durability of the colours. An estimate of such a durability is obtained by accelerated ageing tests of the CAST HX20000 films under UV rays and by outdoor exposure.

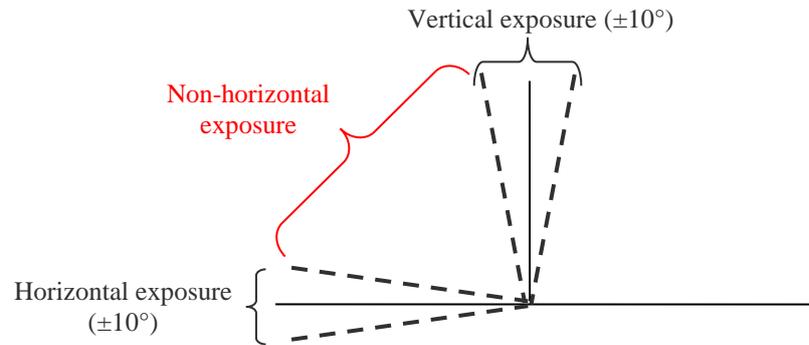
Tinge		Indicative durability (years)⁽²⁾ Vertical exposure (±10°) Central European climate
Range 1:	White, black	6
Range 2:	Colours, other tinges	5
	Metallics (HX20877B, HX20990B/M, HX20948B, HX20GGIM, HX20433B, HX20871B, HX20BCMB, HX20MMAB/M, HX20905B/M)	4
	Glitter	2

Chart 1: vertical durabilities⁽²⁾ Central Europe

- The results indicated above are notably obtained from outdoor vertical exposure (±10° angle). The durability conditions indicated in Chart 1 are inherent to this position up to a few degrees. Any other position accentuates the climatic impacts and may further the appearance of gloss and colour alteration, even a slight dusting phenomenon may occur. Application on a vehicle bonnet/hood is particularly severe, because of the combination of a horizontal exposure and the heat coming from the engine.
- To estimate the durabilities for non-vertical exposure, divide the durabilities in Chart 1 by the factors given in Chart 2.

Exposure	Division factor⁽²⁾ Central European climate
Non-vertical exposure	2
Horizontal exposure (±10°)	2.8

Chart 2: Division factors



- The real durability of a product depends on a large number of parameters, including, among others, the quality and the preparation of the substrate, the exposure (environment, climate, exposure angle), the film maintenance, and the degree of pollution.

To find the indicative durabilities of the films for the country of exposure, please refer to the "Conversion rules for indicative durabilities according to geographical area" chart available under Durability in the "Professionals" pages of our website at www.hexis-graphics.com.

NOTE:

(1) If an important degradation of the film (due to prolonged exposure to sunlight, weather, polluting agents) appears (discoloration, powdering, tanning...), it must be immediately removed from the vehicle in order to avoid any damage to the underlying paint.

(2) The durabilities indicated in this document do not constitute a warranty. They are an estimate of the duration during which the film keeps a correct appearance at the customarily observation distance.

A slight and progressive modification of the colour and brightness is a natural and unavoidable phenomenon inherent to the natural degradation of materials.

Because of the great variety of substrates and the growing number of new applications, the installer must check the suitability of the media for each application.

The measuring methods for the standards quoted above served as 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 information released originates from laboratory measurements on a regular basis. However, it does not constitute a binding warranty. The seller is not held accountable for indirectly related damages beyond the replacement value of the purchased product. All specifications are subject to potential changes without prior notice. Updates of our specifications are automatically available on our website at www.hexis-graphics.com.