

## PRODUCT DATA SHEET



## GRAFIGAST CARBON SERIES

## REFERENCE CB05

Released on the 1<sup>st</sup> of July 2013

## Description

The Graficast Carbon film with reference CB05 (Carbon Mother of Pearl) is a soft structured cadmium-free cast PVC film with a carbon effect. The film is provided with a pressure-sensitive permanent acrylic adhesive. This adhesive is protected by a high-quality silicone paper.

## Composition

Film : structured multi-layered cast PVC film with a carbon effect, with a thickness of 145 microns  
 Adhesive : grey permanent pressure-sensitive solvent-based acrylic adhesive, with a high resistance against UV-radiation, chemical products and humidity.  
 Backing paper : siliconised white PE-coated paper of 130 gr/m<sup>2</sup>

## Application

Graficast carbon films can be used for indoor and outdoor applications. Thanks to their exceptional smoothness and good deformability these films are also perfectly suited for vehicle wrapping. When applying the structured films, it is important that the right techniques are used for heating the material. More "tips & tricks" on the application of the structured Graficast films can be found on our website ([www.grafigast.com](http://www.grafigast.com)).

## Product advantages

The Graficast carbon films give your design a perfect carbon look.

## Product specifications

Technical properties at a relative humidity of 50 ± 5 % and a temperature of 23 ± 2°C.

		Test method	Result
1.	<b>Thickness<sup>1</sup></b>		
	Thickness vinyl	Din53370	145 microns
	Thickness vinyl + glue + backing paper	Din53370	320 microns
2.	<b>Elongation at break<sup>2</sup></b>		
	In production-length direction	Din53455	> 100 %
	In cross direction	Din53455	> 100 %
3.	<b>Dimensional stability<sup>3</sup></b>	Finat 14	< 0.20 mm
4.	<b>Degree of gloss</b>		
	Minimum (measuring angle 20°)	Din67530	not measurable because of the structure of the material
5.	<b>Adhesion strength<sup>4</sup></b>		
	After 20 minutes	Finat 1	14 N/25mm
	After 24 hours	Finat 1	18 N/25mm
6.	<b>Quickstick<sup>5</sup></b>	Finat 9	13 N
7.	<b>Expected outdoor life span<sup>6</sup></b>	-	Flat and slightly curved applications: Adhesion: 10 years Colour : 7-10 years Full wrap : 3-5 years
8.	<b>Temperature range</b>		
	At application	-	+5°C to +40°C
	At use	-	-45°C to +115°C
9.	<b>Colour back print</b>	-	neutral
10.	<b>Flammability</b>		
	If applied on aluminium, glass, steel = self-extinguishing		

## Storage instructions

All Graficast materials always need to be stored in their original packing and with the original protection flanges. Especially for cast films it is important that they are stored vertically. These films are softer than calendered films and consequently more sensitive to pressure marks when they are stored horizontally, resting on their own weight. In order to avoid any loss of quality, the Graficast materials should also be stored in suitable conditions, that is at a temperature between 10 and 20°C, and a relative humidity of 50%.

Under these conditions, the Graficast Carbon materials can be stored up to two years.

## Remarks

- In order to achieve an optimal result, we advise you to clean the surface with isopropanol and/or to use a low-tack application tape !
- The colour of the Graficast vinyls may come off slightly because of over-pigmentation, but as the film is coloured in the mass, this will have no influence on the UV-resistance and the eventual colour of the vinyl.
- As the colour of the film can differ slightly for each production run, we advise you not to use films with different batch numbers in one single and critical job. The number to be taken in to consideration for this purpose consists of the first 5 numbers of the 7-digit batch number.
- In order to remove the film again, it should be heated thoroughly in order to prevent adhesive transfer. Due to the structure of the material, the film can tear while being removed.

## Important

The information, mentioned in this product data sheet, is based upon tests that were executed by Grafityp, and that we consider to be reliable. The information always represents an average, a minimum or a maximum value, and should be considered as such. It is only given for your information, and does not give any guarantee. It is up to the end user to decide whether or not the product is suited for his particular application.

**1)**  
The thickness of the Graficast materials may vary slightly. The indicated value is an average value, obtained from a series of measurements. With structured materials, the deviation from the guide value is larger than with even materials.

**2)**  
The elongation at break of the Graficast materials may vary slightly. The indicated value is a minimum value, obtained from a series of measurements.

**3)**  
The dimensional stability is the shrinkage of the unprinted material in mm. This value is measured by applying the film on aluminium (10x10cm), and placing it in a hot-air oven at 70°C for 48 hours (= Finat 14 Method, adjusted according to our own internally developed procedure). The indicated value is a maximum value, obtained from a series of measurements.

**4)**  
The adhesion strength is measured on glass, and this after 20 minutes and after 24 hours. The film is removed again in an angle of 180° and at a speed of 300 mm/min. The indicated value is an average value, obtained from a series of measurements.

**5)**  
The "Quickstick" is the direct adhesion strength, measured on glass. The indicated value is an average value, obtained from a series of measurements.

**6)**  
The expected outdoor life span refers to outdoor use under Central European conditions and to vertical applications. Non-vertical application can reduce the life span up to 50%. The expected life span of our films is based upon professional application on a dry, degreased and suitable background. Tropical conditions, or the use near chemical emission, may have a detrimental effect on the life span. The life span can also differ, depending on the colour (due to the pigmentation).

For more detailed information we also refer to our general "Grafiprint Warranty Certificate" and to our "General Terms and Conditions of Sale and Delivery".