

# GRAFIWRAP WRAPPING FILMS

## COLOUR WAVE



### References CWx11 up to CWx15

Released on 1<sup>st</sup> October 2019

### Description

The GrafiWrap Colour Wave series (references CWx11 up to CWx15) is a soft cadmium-free multi-layered cast glossy PVC film with a colour wave effect (meaning that colours change depending on the viewing angle). The film is provided with a pressure-sensitive permanent acrylic air escape adhesive. This adhesive is protected by a high-quality silicone paper.

### Composition

Film : 100 micron thick multi-layered cast glossy PVC film with a colour wave effect  
 Adhesive : grey permanent pressure-sensitive solvent-based acrylic air escape adhesive, with a high resistance against UV-radiation, chemical products and humidity.  
 Backing paper : siliconised white PE-coated paper of 145 gr/m<sup>2</sup>

### Application

The GrafiWrap Colour Wave series (films with changing colour depending on the viewing angle) was developed for long term outdoor applications under the most extreme conditions. As the film is extremely soft and flexible, it can be used over corrugations or rivets with ease. GrafiWrap films are therefore suitable for sign making on cars, boats, trucks and aeroplanes, but also for stripings in the auto-motive industry and for interior decoration.

### Product advantages

The GrafiWrap Colour Wave vinyls can be used for all difficult applications, amongst which car wrapping.

### 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	100 micron
	Thickness vinyl + glue + backing paper	Din53370	315 micron
2.	<b>Elongation at break<sup>2</sup></b>		
	In production-length direction	Din53455	> 150 %
	In cross direction	Din53455	> 150 %
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 effect pigments in the material
5.	<b>Adhesion strength<sup>4</sup></b>		
	After 20 minutes	Finat 1	19 N/25mm
	After 24 hours	Finat 1	23 N/25mm
6.	<b>Quickstick<sup>5</sup></b>	Finat 9	12 N
7.	<b>Expected outdoor life span<sup>6</sup></b>	-	Flat and slightly curved applications: Adhesion: 5 years Colour fastness : 3-5 years Full wrap : up to 3 years
8.	<b>Temperature range</b>		
	At application	-	+5°C to +40°C
	At use	-	-25°C to +100°C
9.	<b>Colour back print</b>	-	grey
10.	<b>Flammability</b>		
	If applied on aluminium, glass, steel = self-extinguishing		

## Storage instructions

All GrafiWrap 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 GrafiWrap 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 GrafiWrap Colour Wave materials can be stored up to two years.

## Remarks

- The GrafiWrap cast vinyls are manufactured by a patented production method.
- In order to achieve an optimal result, the vinyl needs to be applied in the recommended way. All information can be found on [www.grafityp.com](http://www.grafityp.com) → Downloads → Manuals.
- The colour of the GrafiWrap 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 into 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.

## 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 GrafiWrap materials may vary slightly. The indicated value is an average value, obtained from a series of measurements.

**2)** The elongation at break of the GrafiWrap 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 "GrafiWrap Warranty Certificate" and to our "General Terms and Conditions of Sale and Delivery".