

## PRODUCT DATA SHEET



# GRAFITACK GEF SERIES GLOSSY COLOURS

## REFERENCES GEF01 to GEF90

Released on 19<sup>th</sup> December 2016



[www.Grafityp.com](http://www.Grafityp.com)

### Description

Grafitack GEF series (glossy) is a soft ecological **Grafityp Ecology Film** without any chlorine or plasticizers, that comes with a water based pressure-sensitive permanent acrylic adhesive. This adhesive is protected by a high-quality silicone paper. A good recognizability is guaranteed by the purple print on the material's backing paper.

### Composition

Film : 70 micron thick glossy GEF (Grafityp Ecology Film)  
 Adhesive : transparent water based pressure-sensitive permanent acrylic adhesive, with a high resistance against UV-radiation, chemical products and humidity (GEF01 with white adhesive)  
 Backing paper : siliconised white craft paper of 120 gr/m<sup>2</sup>

### Application

Grafitack GEF series has been especially developed for outdoor applications (4 to 5 years) on an even surface (e.g. advertising campaigns, seasonal offers, construction work signs, etc...). Furthermore, the Grafitack GEF series can be used for all kinds of indoor applications, such as sign making in shops or at trade shows, in warehouses, etc... Unlike PVC, GEF films can also be used bubble-free on most polycarbonates and polystyrenes.

### Product advantages

Grafitack GEF series is extremely flexible. The film shows hardly any shrinkage, and is completely free of chlorine and plasticizers, so no chlorine gases are released when the film is incinerated.

### 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 film	Din53370	70 micron
	Thickness film + glue + backing paper	Din53370	215 micron
2.	<b>Elongation at break<sup>2</sup></b>		
	In production-length direction	Din53455	> 600 %
	In cross direction	Din53455	> 600 %
3.	<b>Dimensional stability<sup>3</sup></b>	Finat 14	< 0,25 mm
4.	<b>Degree of gloss</b>		
	Minimum (measuring angle 20°)	Din67530	40 GU (gloss units)
5.	<b>Adhesion strength<sup>4</sup></b>		
	After 20 minutes	Finat 1	10 N/25mm
	After 24 hours	Finat 1	14 N/25mm
6.	<b>Quickstick<sup>5</sup></b>	Finat 9	5 N
7.	<b>Expected outdoor life span<sup>6</sup></b>	-	4-5 years
8.	<b>Temperature range</b>		
	At application	-	+10°C to +35°C
	At use	-	-15°C to +60°C
9.	<b>Colour back print</b>	-	purple
10.	<b>Flammability</b>		
	Product is flame resistant, officially certified as " <b>B1</b> " Din4102-1 (DE) and " <b>CLASS 1</b> " BS476-7 (UK)		

## Storage instructions

All Graftack materials always need to be stored in their original packing and with the original protection flanges (and preferably stored vertically).

In order to avoid any loss of quality, the Graftack 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 Graftack 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 !

Overlaps on GEF (PVC on GEF and/or GEF on GEF) can lead to lower adhesive strength values.

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.

The backing paper of the GEF series is sensitive to water, and shall in no case be exposed to humidity. After getting in contact with water, the backing paper may tear or split. That is why we advise you to remove the backing paper completely if you wish to apply the GEF films wet.

After about one and a half to two years, the glossy GEF films can get a matting effect. By the end of the GEF film's life span, small cracks can appear in the polymeric layer, as a result of which the film can no longer be removed in one piece.

If the black GEF films are applied wet on glass, the adhesive may in some cases turn white. This phenomenon will disappear automatically as soon as the adhesive is completely dry.

## 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 Graftack materials may vary slightly. The indicated value is an average value, obtained from a series of measurements, in which a tolerance of 10 % is acceptable.

### **2)**

The elongation at break of the Graftack 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. The life span can also differ, depending on the colour (due to the pigmentation). Tropical conditions, or the use near chemical emission, may have a detrimental effect on the life span.

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