

## PRODUCT DATA SHEET



## GRAFIPRINT LAMINATES

## REFERENCE GL

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

## Description

Grafiprint Glow laminate (reference GL) is a soft cadmium free glossy polymeric cast special-effect PVC film with phosphorus elements, which make the white surfaces of a sign or print glow up in the dark after the image has been exposed to light for a certain period of time. The film is provided with a pressure-sensitive permanent acrylic glue. The glue is protected by a high-quality silicone paper. This seamless laminate has especially been created for protecting digital prints (patent pending).

## Composition

Film	: 70 micron thick polymeric cast glossy phosphorous film with an excellent resistance against UV-light, chemical products, humidity, dirt and fingerprints
Glue	: solvent-based pressure-sensitive permanent acrylic glue. This glue does not have an aggressive reaction on the printout
Backing paper	: siliconised clay-coated paper of 120 gr/m <sup>2</sup>

## Application

Grafiprint Glow laminate (reference GL) has been developed especially for letting white surfaces of a sign or print glow up in the dark after the image has been exposed to light for a certain period of time. Thanks to its excellent UV-block, Grafiprint GL laminate is also perfect for long-term outdoor use under the most extreme conditions. As such, it may add enormously to the UV-resistance of your printouts. Preceding compatibility tests are, however, advisable.

## Product Specifications

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

	Test method	Result
<b>1. Thickness<sup>1</sup></b> Thickness film Thickness film + glue + backing paper	Din53370 Din53370	70 micron 215 micron
<b>2. Elongation at break<sup>2</sup></b> In production length direction In cross direction	Din53455 Din53455	> 150 % > 150 %
<b>3. Dimensional stability<sup>3</sup></b>	Finat 14	< 0.20 mm
<b>4. Degree of Gloss</b> Minimum (measuring angle 60°)	Din67530	45 GU (gloss units)
<b>5. Adhesion strength<sup>4</sup></b> After 20 minutes After 24 hours	Finat 1 Finat 1	14 N/25mm 18 N/25mm
<b>6. Quickstick<sup>5</sup></b>	Finat 9	12 N
<b>7. Expected outdoor life span<sup>6</sup></b>	-	2 – 3 years (vertical)
<b>8. Glow Intensity<sup>7</sup></b>	Din67510-1	after 10 min.: 36,7 mcd/m <sup>2</sup> after 60 min.: 5 mcd/m <sup>2</sup> after 662 min.: 0 mcd/m <sup>2</sup>
<b>9. Temperature range</b> At application At use	- -	+5°C up to +40°C -20°C up to +70°C
<b>10. Colour back print</b>	-	neutral
<b>11. Flammability</b> If applied on aluminium, glass, steel = self-extinguishing		

## Storage instructions

All Grafiprint 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 Grafiprint laminate 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 Grafiprint materials can be stored for a period of two years.

## Remark

The Grafiprint cast vinyls are manufactured by a patented production method.

## 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 Grafiprint materials may vary slightly. The indicated value is an average value, obtained from a series of measurements.
- 2)**  
The elongation at break of the Grafiprint materials may vary slightly. The indicated value is a minimum value, obtained from a series of measurements.
- 3)**  
The dimensional stability is the shrinkage 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.
- 7)**  
The glow intensity of the Grafiprint laminate LAM GL is tested in accordance with Din 67510-1. In this test, the laminate is exposed to a 1000 lux light source for 5 minutes, after which the glow intensity is measured after 10 minutes and after 60 minutes. Finally, the test checks how long it takes until no glow can be measured anymore.  
For more detailed information we also refer to our general "Grafiprint Warranty Certificate" and to our "General Terms and Conditions of Sale and Delivery".