

## PRODUCT DATA SHEET



# GRAFIPRINT LAMINATES

## REFERENCE LAMX45

Reviewed on 10<sup>th</sup> November 2016



### Description

Grafiprint LAMX45 is a soft cadmium free matt polymeric cast PVC film, 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.

### Composition

Film	: 40 +/- 5 micron thick polymeric cast matt vinyl film with an excellent resistance against UV-light, chemical products, humidity and dirt
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

Thanks to its excellent UV-block, the Grafiprint LAMX45 laminate is 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
1.	<b>Thickness<sup>1</sup></b>		
	Thickness film	Din53370	40 micron
	Thickness film + glue + backing paper	Din53370	190 micron
2.	<b>Elongation at break<sup>2</sup></b>		
	In production length direction	Din53455	> 190 %
	In cross direction	Din53455	> 190 %
3.	<b>Dimensional stability<sup>3</sup></b>	Finat 14	< 0.25 mm
4.	<b>Degree of Gloss</b>		
	Maximum (measuring angle 85°)	Din67530	20 GU (gloss units)
5.	<b>Adhesion strength<sup>4</sup></b>		
	After 20 minutes	Finat 1	13 N/25mm
	After 24 hours	Finat 1	16 N/25mm
6.	<b>Quickstick<sup>5</sup></b>	Finat 9	12 N
7.	<b>Expected outdoor life span<sup>6</sup></b>	-	5-6 years (vertical)
8.	<b>Temperature range</b>		
	At application	-	+5°C up to +40°C
	At use	-	-20°C up to +70°C
9.	<b>Colour back print</b>	-	grey
10.	<b>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. 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 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.

## Remarks

- 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.
- When applying matt films, you can easily get scratches on the material. That is why we advise you always to apply matt films by machine or using a felt squeegee and wearing gloves. If you still see scratches on the material after the application, these can be removed again with ease by means of a hot air gun.

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