

# GRAFIPRINT MEDIA FOR LARGE FORMAT PRINTING



## REFERENCE LM112

Released on 1<sup>st</sup> April 2018

### PROVISIONAL SPECIFICATIONS

#### Description

Grafiprint LM112P is a soft, seamless, cadmiumfree, top-coated monomeric calendered, white glossy PVC film, which was developed to be used on solvent printers (eco/mild/hard), latex printers and UV printers. The film is provided with a permanent pressure-sensitive solvent-based acrylic adhesive. This adhesive is protected by a high quality silicone paper.

#### Composition

Film : 150 micron thick monomeric calendered top-coated white glossy PVC film.  
 Adhesive : permanent pressure-sensitive solvent-based acrylic adhesive.  
 Backing paper : clay-coated release liner (120 g/m<sup>2</sup>)

#### Application

Grafiprint LM112P PVC film is perfectly suited for all possible indoor applications and short to middle-term outdoor applications on non-corrugated surfaces. The film has been developed especially for PRINT & CUT applications where cutting immediately after printing (without any waiting time) is required, even with high ink loads.

#### 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 vinyl + top coating Thickness vinyl + top coating + glue + paper	Din53370 Din53370	150 micron 290 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	< 1 mm
<b>4. Degree of gloss</b> Minimum (measuring angle 20°)	Din67530	> 50 GU (gloss units)
<b>5. Adhesion strength<sup>4</sup></b> After 20 minutes After 24 hours	Finat 1 Finat 1	13 N/25mm 15 N/25mm
<b>6. Quickstick<sup>5</sup></b>	Finat 9	4 N
<b>7. Expected outdoor life span<sup>6</sup></b>	-	Up to 3 years
<b>8. Temperature range</b> At application At use	- -	+10°C to +35°C -15°C to +60°C
<b>9. Colour back print</b>	-	grey
<b>10. 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 Low-Volatile Solvent Vinyl 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

We advise you to leave the low-volatile solvent prints to dry sufficiently before enrolling them or laying them on top of each other.

A Grafiprint UV-laminate, which is always necessary in case the print will be exposed to mechanical friction, can prolong the life span considerably, and can give the print a high-gloss or matt effect.

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.

## Recommended temperature settings

When printing on the Grafiprint solvent and low-volatile solvent media, the temperature settings of the printer are extremely important. Depending on the ambient conditions, the amount of ink and the requested print quality, we advise a pre-heater temperature between 35°C and 45°C. This temperature can be raised, on condition that the Grafiprint material stays completely flat. A too high temperature can lead to an inferior print quality and to colour differences, because the material will become soft, as a result of which it might get damaged by the transport wheels of the printer, and because the material will undulate, as a result of which it could touch the print head.

The same goes for the use of an after-heater (dryer). We advise an after-heater temperature that is about 5°C to 10°C higher than the pre-heater temperature. But again, the material should not undulate as a result of a too high temperature setting.

In general, we can say the temperature of both heaters should be set as high as possible, without the material showing any form of undulation.

## 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 of the unprinted material in mm. This value is measured by applying the film on aluminium (100x100mm), 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 suitbale background. Tropical conditions, or the use near chemical emission, may have a detrimental effect on the life span.

As the quality of your print does not only depend on the Grafiprint medium, but also on so many other factors (such as the printer, the quality of the inks, the print software, the ICC profile, the ambient temperature, the air humidity, etc...), Grafityp can not guarantee or be held responsible for the eventual print result.

The materials mentioned in our compatibility list have been tested under normal conditions and are purely indicative.

Subject to modifications.

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