

## Technical information

**SymbioCling™** is an electrically charged, printable, polypropylene film tipped onto a 220 gsm extra white paper backer or 190 gsm classic white paper backer. SymbioCling is a removable, repositionable and erasable alternative to cling vinyl and pressure sensitive film products.

It will not leave a sticky residue when removed, it is environmentally friendly, and doesn't contain any volatile chemicals. The thickness of the foil is 50 µm and the thickness of the paper backer is 255 µm or 248 µm (total thickness 305 µm or 298 µm).

**SymbioCling™** is available in both white and clear film and is stocked in the standard sizes. Custom sheet sizes can be manufactured (with minimum order requirements). More information in the product guide.

### Applications:


- Pharmaceutical Signage
- Educational Signage
- POP Displays
- Temporary Wall Decor
- Calendars
- Greeting Cards
- Children's products

### Characteristics:

- Adheres to surfaces such as:
- glass, drywall, metal, plastic, wood, brick, marble and much more
- Both printed and unprinted sides are self-adhering
- Repositionable for any indoor application
- Can be perforated, die cut and kiss cut
- The backer is fully printable on the back side
- Both the film and the paper backer can be recycled

### Technical data:

SymbioCling™							
<i>Property of film</i>	<i>Unit</i>	<i>White</i>			<i>Clear</i>		
Film Thickness	µm	50			50		
Film Yield	m <sup>2</sup> /kg	26.0			22.0		
Film Unit Weight	g/m <sup>2</sup> (gsm)	38.4			45.5		
Wetting Tension	dyn/cm	>38			>38		
<i>Property of backer</i>		<b>OES</b>	<b>EC</b>	<b>EW</b>	<b>EC</b>	<b>EW</b>	<b>OES</b>
Backer Unit Weight	g/m <sup>2</sup> (gsm)	170	190	220	190	220	170
Backer Thickness	µm	204	248	255	248	255	204
Total Thickness	µm	254	298	305	298	305	254

 Symbio Media Group aims to ensure the accuracy and relevance of the information given on the use and application of its products, however it cannot guarantee the data, some of which are based on outside sources. We suggest that the purchaser confirm product compatibility prior to using this product. The product needs to be tested before ordering and printing. A small quantity of sheets (1-2%) may present lightnings and it is not a reason for complaint.



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## Printing information

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### **Offset - SymbioCling™ Offset (sheets):**

- Conventional / Solvent based ink: Oxidizing, Low tac, Low VOC, High solid
- The printer should use a 50 µm or larger coated spray powder
- The pre-press screen setting should not exceed 220%
- The water level should be reduced
- The alcohol level should not exceed 5%
- The anti-static at the printing machine should be turned off
- No heat on the press
- Lifts of 250 sheets for drying
- Drying time: 1-7 days

Examples of Offset inks:

- Novaplast Process VH81 (Flint Group)
- Toyo TSG, TSP or CT process 400
- Epple Folien Ink

### **UV Offset - SymbioCling™ Offset (sheets):**

- The printer should not use the inner deck UV lamps (between print units) and use only 1 lamp in the delivery set at 50-70% of power
- The printer should expect a 4-6 hour drying time
- The anti-static at the printing machine should be turned off

Examples of UV-Offset inks: (Standard UV inks which are used for vinyl)


- Hostmann-Steinberg (NewV Poly Series)
- Sun Chemical (Suncure Starluxe)

### Which printing techniques do not work with SymbioCling products?

- The SymbioCling products cannot be printed with Screenprint, Latex, Ink-Jet and Laserprint.

### Can SymbioCling products be varnished?

- We do not recommend to varnish the films after printing. An extra layer of varnish will reduce the charge-level.
- No aqueous coating.

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## Product guide

### Standard Offset / UV-Offset

#### Design, Printing and Storage Guidelines

**SymbioCling™** is an electrically charged polypropylene film. The benefit of using SymbioCling is its ability to cling to any clean and dry surfaces without leaving a residue. It adheres to wood, brick, metals, glass, drywall, plastic: any surface except certain fabrics. This unique ability creates new and creative ways to provide graphic images for many different applications. These include POP advertising, retail promotions, pharmaceutical and educational signage and greeting cards. To maximize the ability to cling it is important to consider the following design recommendations. The SymbioCling film is glued on to a cardboard by two glue lines from the long sides of the sheet. One glue line is continuous and the other one has a dotted pattern. **Do not cut out the glue lines before printing!** On the tail of the sheet it is recommended to leave an unprinted area. The color bar should be placed 2 cm from the tail edge of the sheet. The paper backer is very much depending on humidity and air pressure. It is also related to the storage conditions. For carton board is complicated to determine the ignition point.

#### Sizes

**SymbioCling™** standard sheet sizes:

Film	White			Clear		
	EW (220 g/m <sup>2</sup> )	EC (190 g/m <sup>2</sup> )	OES (170 g/m <sup>2</sup> )	EW (220 g/m <sup>2</sup> )	EC (190 g/m <sup>2</sup> )	OES (170 g/m <sup>2</sup> )
Backer						
Size (cm)	48x65 70x100	48x65 45x61 52x72	48x65 45x61	48x65 70x100	48x65	48x65

Custom sheets can also be manufactured. SymbioCling can be tiled to create very large images. Minimum finished size should be at least 8 x 13 cm. This sizes may occur with a lower charge.

#### Inks

Use as little ink as possible. Build PMS colors; process ink builds allow more charge to reach the surface than a solid PMS flood. 4-color process is also less dense and adds less weight to the piece. The SymbioCling film is highly reflective and does not require heavy ink coverage to achieve a quality image. Avoid designs that would leave heavy deposits of ink to prevent the film from curling.

Symbio Media Group does not recommend the use of varnish or aqueous coating. They will reduce the charge, curl the film, and void all product warranties.

Total ink coverage (TIC) should not exceed 240% in the color build, a raster of 60-70 l/cm is recommended. When having a combination of two or more solid colors, reduce the ink density on the press. When printing on the transparent material and using a covering white, please rasterize the covering white to 95%.

#### Printing Guidelines

**SymbioCling™** is a 50 µm polypropylene film tipped onto a 220 gsm or 190 gsm paper backer, and is printable in Offset and UV-Offset. The SymbioCling material itself cannot be printed on both sides; however, the liner can be printed on the back side. Clear SymbioCling can be printed reverse or right reading for window applications. To enhance the color of an image on clear, an opaque white can be printed before a pass of 4 color process, or add the white last if reverse printing.



Fan the sheets properly prior to loading. Run in short lifts of 200-250 sheets. Strong air supply is essential for feeding SymbioCling. Position feeder air blowers so that the air separates the first 10-15 sheets to minimize blocking. Use additional side blowers. Position side air-blowers at the front sides of the stack. Set the feeder for printing on thick materials. Run at max. press speed of 5000-7000 sheets per hour. Run with low levels of water.

SymbioCling absorbs practically no water and therefore very little water is needed. The plate requires only enough water to keep the surface wet. Set the print impression pressure as light as possible in order to avoid stretching of the film.

**Do not use any antistatic devices including sprays, tinsel, or on-press electronics.** These will reduce the static charge loaded in the material.

For UV-offset printing expect a 4-6 hours cure time (drying time). For conventional offset schedule the drying time to 1-7 days.

**SymbioCling™** cannot be screen printed and also not varnished or printed with aqueous coating. These processes will reduce the charge and affect its ability to cling. Symbio Media Group will not accept any claims, or warranty material, for screen printed sheets, varnished sheets or sheets printed with aqueous coatings.

### **Ink drying**


Adjust the UV lamps to a **minimum** level that still cures the inks but does not wrinkle the film. It is recommended that the heat of the lamps should increase progressively in the running direction of the material, applying less heat on the first lamps and more heat on the last lamps before delivery. When using a hybrid printing machine turn off the IR lamps if possible.

### **Storage Guidelines**

Store inside at room temperature, from 18° to 27°C with a relative humidity level between 25% and 50%. If the pallets are kept in a cold warehouse, the material should be acclimatized to press room temperature in the sealed original wrap for minimum 24 hours before opening. Unwrap SymbioCling once it has acclimatized to the press room temperature. Let the opened SymbioCling pallet acclimatize to press room temperature 24 hours prior to running. Sudden changes of temperature and/or humidity may cause the film to wrinkle. After printing rewrap the remaining, unused material appropriately with plastic foil. Humidity and dust should be avoided to prevent SymbioCling from wrinkling and losing its static charge.

### **Finishing**

**SymbioCling™** can be die-cut or kiss-cut to create unique images; avoid long thin pieces. SymbioCling can also be perforated. Review any special finishing processes with your printer or post press vendor. These guidelines for designing on SymbioCling are collected from users of Symbio Media Group's products and are intended to help designers maximize the creativity, performance and printability of the material

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