



Offset

Sheet-fed TRADITIONAL (Oxidative) & UV-OFFSET

STAFIX®
STATIC

PRODUCT & PRINTING MANUAL

FEBRUARY 2017

In this product & printing manual we will guide you through the various aspects of working with our STAFIX®STATIC products. Following this manual will help you to achieve the desired results and avoid potential difficulties.

The Product & Printing Manual consists of the following segments:

- 1) Product Properties
- 2) Designing and Pre-press
- 3) Storage
- 4) Printing
- 5) Post-Press

1. PRODUCT PROPERTIES

STAFIX®STATIC OFFSET is a glue-free sticker material that adheres to almost any clean, even surface with a static charge. The material adheres on average for 3 months and is easy to apply and removable without leaving any residue. The material adheres on the unprinted side only.



STAFIX®STATIC OFFSET is available in white and clear and comes in sheets. The material consists of two layers:

- 50 microns thick, polypropylene film (top layer)
- 200 g/m² PEFC-certified cardboard backer (bottom layer)

The film is attached to the cardboard backer by two gluelines: A solid glueline in the front of the sheet, and a dotted glue line in the back of the sheet (see picture).

STAFIX®STATIC film is 100% recyclable as a grade 5 plastic and doesn't release toxic gases into the environment if incinerated. The cardboard used for the backer is PEFC certified.

SHELF LIFE

In the sealed original package, unprinted STAFIX®STATIC sheets can be stored up to 12 months following our storage guidelines.

PRODUCT DATA

STAFIX®STATIC OFFSET					
		WHITE		CLEAR	
		FILM	BACKER	FILM	BACKER
Weight	g/m ²	36.3	200	45.5	200
Thickness	mm	0.05	0.305	0.05	0.305
Total Weight	g/m ²	236.3		245.5	
Total Thickness	mm	0.355		0.355	

FORMATS

STAFIX®STATIC OFFSET sheets are available in the following formats:

- 320 x 450 mm
- 480 x 650 mm
- 707 x 1000 mm
- Custom size



PACKAGING

- Pallets of 2000 sheets bulk
- Pallets of 2000 sheets ream wrapped
- Test kit (boxes of 200 sheets)

FORMAT TOLERANCE

Size tolerance is 0 / +5 mm in machine and cross direction. Sheet flatness tolerance is 8mm.

CUSTOM SIZE ORDERS

For larger quantities, cost efficiency can be achieved by producing tailored size sheets. Please consult us regarding minimum quantities and delivery times

2. DESIGNING AND PREPRESS

Do not use a Total Ink Coverage (TIC) greater than 240%. Use the Under Colour Removal (UCR) and Grey Component Replacement (GCR) if needed. Heavy deposits of ink should be avoided, especially near the edges of the artwork, to prevent the film from curling or rippling. Leave an unprinted border at the edges of the artwork if possible. Do not overlap a combination of two or more solid colours. Heavy layers of ink may cause the film to swell.

For pictures a raster of 60 - 70 l/cm is recommended. Place the artwork close to the front of the sheet and leave an unprinted area on the tail of the sheet. The colour bar should be placed 2cm from the tail edge of the sheet. Make sure that black text consists of only 100% black for better registration.

SHEET SIZE	MAXIMUM PRINTABLE AREA
320 x 450 mm	300 x 440 mm
480 x 650 mm	440 x 640 mm
707 x 1000 mm	640 x 990 mm

CLEAR MATERIAL

When printing an artwork on the clear material that will be used for window advertising, print the image mirror-wise and apply an additional covering white layer to reduce the transparency. Rasterize the covering white to 95%. Additionally to the covering white you can use 240% maximum TIC on the colour build.

The sticker or poster is always installed from the unprinted side to the glass. The material adheres only from the unprinted side. Not all the presses have white inks available; consult with your printing house beforehand.

3. STORAGE

Store the unwrapped STAFIX®STATIC OFFSET in the original package at 25% to 50% relative humidity and 20°C to 27°C temperature. The material should remain sealed in the original wrap until the STAFIX®STATIC material has warmed up to print-room temperature. The print-room recommended relative humidity is 50% to 60% and the temperature 20°C to 27°C.

	STORAGE CONDITIONS	PRINTING CONDITIONS
Humidity	25% to 50%	50% to 60%
Temperature	20°C to 27°C	

The warming-up time depends on the pallet weight and the temperature difference between the warehouse and the print-room, see table below for more details:

PACKAGING		Weight	Temperature difference (°C)								HOURS
FORMAT		KG (APPROX)	5°	10°	15°	20°	25°	30°	35°	40°	
OFFSET sheets, 320 x 450mm	Full pallet (2000 sheets)	80 KG	4	12	18	24	30	34	38	40	
OFFSET sheets, 480 x 650mm	Full pallet (2000 sheets)	160 KG	8	24	36	48	60	68	76	80	
OFFSET sheets, 707 x 1000mm	Full pallet (2000 sheets)	380 KG	14	33	47	61	75	84	94	98	

Once the STAFIX®STATIC -sheets have reached the same temperature as the print room you can unwrap the pallet. Let the material acclimatize without the wrap / plastic bag for 2 hours prior to printing for better runnability and efficient feeding. After use re-seal the remaining unused material in the original package. Sudden changes of temperature and/or humidity may cause the cardboard to change size, and this could wrinkle the film.

4. PRINTING

(Sheet-fed Traditional- & UV-Offset presses)

Always run a test with the right inks and right conditions before printing a commercial job, specially for the first time printing on STAFIX®STATIC.

POSITION OF THE PRINTING PLATE: It is recommended to place the artwork close to the front of the sheet and leave an unprinted area on the tail of the sheet for better registration. The colour bar should be placed 2cm from the tail edge of the sheet. It is recommended to leave an unprinted area on the tail of the sheet.

FEEDING: Fan the sheets properly prior to loading. This is very important for better runnability. Run in short lifts of 200-250 sheets. Set the feeder settings for printing on thick materials. The STAFIX®STATIC



OFFSET film is glued on to a cardboard by two glue lines from the long sides of the sheet. **DO NOT CUT THE GLUE LINES BEFORE PRINTING.** The sheet sizes 480x650mm and 707x1000mm have a cardboard margin on the tail edge of the sheet to allow for better feeding.

Strong air supply is essential for feeding **STAFIX@STATIC OFFSET**. Position feeder air blowers so that the air separates the first 10-15 sheets to minimize blocking. Use additional side blowers if possible, and position them at the front of the stack. Run at max. press speed of 5000-7000 sheets per hour.

Print with low levels of water. **STAFIX@STATIC OFFSET** absorbs no water and therefore very little water is needed (roughly less than half of what would be required with paper). If possible use metal plates that carry minimal water. The plate requires only enough water to keep the surface wet. For oxidative inks keep the alcohol level from 10 to 15% (Follow the guidelines from the ink supplier). The Acidity of the dampening solution should not be set too high, (PH value approx. 5.5). Set the print impression pressure as light as possible in order to avoid stretching of the film.

INK USAGE & RECOMMENDED INKS

Avoid applying heavy layers of ink. Keep the ink density lower than when printing on coated paper. Use **ONLY** our recommended inks suitable for printing on thin polypropylene substrates. Foil inks including mineral oils may cause the film to swell. Avoid using other inks, drying pastes or additives.

RECOMMENDED INKS FOR STAFIX@STATIC OFFSET:	
TRADITIONAL OFFSET (OXIDATIVE INKS)	UV-OFFSET (UV-curable inks)
Flint Group Novaplast	Hostmann-Steinberg (NewV Poly Series)
Sun Chemical Foils 44, SunTec® Foils	Sun Chemical (Suncure Starlux)

DRYING

TRADITIONAL OFFSET

Do not use IR dryers; the intensity of the IR lamps may cause the film to expand due to excessive heat. Additionally it may extend the drying time. Use a larger grain powder, 40 - 50 microns to facilitate drying. Larger grain powder allows more air to pass between the sheets and therefore facilitates faster drying.

Dry the sheets in stacks of 200-250 sheets. Offsetting can occur if stacks are too large or the powder grain size is too small. Stacks that are too large may also obstruct airflow therefore slowing down drying time significantly. Plan for 24 - 48 hours of drying time. Make sure the drying room has proper ventilation; this will speed up the drying process.

UV-OFFSET

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.

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

COATINGS: Do not use any varnish or aqueous coatings! Coatings will eliminate the static charge and curl the material.

5. POST-PRESS

STAFIX®STATIC sheets can be die-cut and kiss-cut. Avoid long thin shapes as they might curl away from the surface and round the inner corners because the inner-sharp corners might cause the film to tear. Perforating, binding and direct mail inserting is also possible. When trimming, use sharp, nick-free blades. Do not cut the glue lines in order to allow for auto-feeding.

PACKING & SHIPPING

Protect the products well from humidity and dust when sending the finished goods to your client. Avoid packing the material with products that emit VOC's (Volatile Organic Compounds / Solvents) as they will reduce the static charge. Do not pack the material using vacuum-sealed packaging; the freshly printed ink can also emit VOC's.

USE & INSTALLATION

STAFIX®STATIC adheres on average for 3 months to almost any even surface. The less the material is repositioned, the longer it stays. STAFIX®STATIC adheres from the unprinted side only and is bubble free. STAFIX®STATIC is recommended for temporary indoor use. Please smooth the material against the surface applied, removing the air between the surface and the film, for better adherence. Avoid placing the material onto freshly painted walls, the VOC's emitted by the fresh-paint reduce the static charge of the film. For more detailed instructions, please refer to our separate Use & Installation guidelines available at www.stafix.eu

Please contact Stafix for any questions related to the designing, storing, printing or general use of our products. We would be happy to assist you to reach the desired results with your print campaign.

All information is based on current quality levels. Stafix Ltd reserves the right to change the specifications of the contents as part of our continual product development. We recommend that the purchaser confirm product compatibility before the use of the product. Stafix Ltd will not accept any claims or warranty on material that has not been handled according to these instructions.