SYNPLAS
PRODUCT INFORMATION

SYNPLAS is a synthetic paper suitable for printing by all popular printing methods:-
Offset, Screen, Flexo etc. The following information has been produced as a guide to using this material.

SYNPLAS SPH has very good tear resistance in both directions. The sheet is coated both sides to accept conventional inks. When printing litho, oxidising inks will decrease drying time. **SYNPLAS SPA and SPC** has very good tear resistance in one direction only. The heavier weight sheets will offer good resistance in the other direction also. The sheet has **no** coating and should be printed using oxidising inks only.

PRE-PRESS

- Unwrap **SYNPLAS** just prior to printing
- Relative humidity of pressroom should be at 50-60%
- Make Ready on the same material that is being printed

LITHO DAMPENING

- Due to the low absorbency of this type of material damping must be kept to an **absolute minimum** – excess water will greatly retard ink setting
- **Do not use normal fount solution**. A mixture of water and 10-15% isopropyl alcohol should be used. This will have the highest contribution in the reduction of drying time.
- PH of damping solution should be 5-6

INKS

- **SYNPLAS SPA and SPC** grades require oxidizing inks
- **SYNPLAS SPH** grade has a coating that will accept conventional inks, however, this will lengthen drying times considerably; oxidizing ink is recommended. If lightweight material is used with a heavy ink film requiring close register then use fully oxidizing ink to avoid the risk of distortion

- Screen inks with solvent thinners may distort the surface and should be tested
- Light fast inks should be specified for long-term exposure to daylight
- Use minimum ink – ink rests on the surface and is not absorbed as with paper

DRYING

- Drying agents can be added to the ink or fount to speed drying times. Those added to the ink have given the greater improvement in drying performance
- Use a non-vanishing spray powder of 20 microns plus; it is recommended a smaller quantity of a larger size (30 micron) is used
- Keep printed stacks to a height not exceeding 200 sheets – it is suggested a racking system on a pallet is used
- Air the sheets to promote circulation
- When used forced drying methods heat must be kept to a minimum to avoid distorting the sheet. IR systems should not be used with oxidizing inks

GUILLOTINING DIE CUTTING

- Work must be fully dry before further processing
- Blades and cutters **must** be sharp
- Avoid acute internal angles that may cause a weakness to the material. Rounded shapes are better.

This material comes in many thickness varieties and widths. It can punched, stitched, eyelitted and glued. Self-adhesive is also available on request.

All Synplas products have a closed cell structure so 30-50% less ink needed because ink stays on the surface giving a more vibrant image.

SPH :- Extruded – 5 layers – core made up of 3 layers of foamed film and a film covering either side of solid outer layers.
Coated to accept any offset inks, high opacity, brighter white, flexible, lightweight

SPA:- Calendered – single layer – no coating – only oxidising inks, UV or screen inks to be used. Heavier and more rigid than SPH

SPC:- Calendered – heavier grade, single layer, uncoated. Same surface as SPA.

SPG:- Coated one side only for printing. Reverse for adhesion hence 96 micron thickness. Mainly for label stock.

Note:- Cobalt driers added to the fountain solution can result in a matt image.

Care should be taken with sheets thinner than 100 micron as these can cause problems with grippers on the machine.

The above information is produced as a guide only. Testing prior to running a job is recommended.