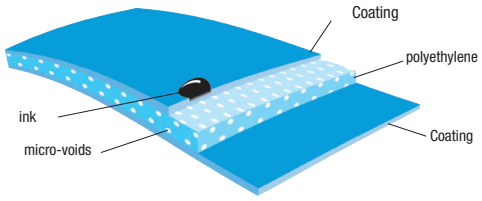
Polyart®
the synthetic paper



Polyart® Offset Printing Tips

We would like to thank you for selecting POLYART® for your synthetic paper. We take great pride in the manufacturing of POLYART®. To ensure that your final product conforms to the high quality standards you have set, we are providing the following suggestions.

PRINT QUALITY
Sharp prints with excellent reproduction of line and tone detail can be readily obtained using screen sizes up to 200 lines. Dot gain on POLYART will normally be between 18% and 22%.

INKS
For most jobs involving heavier basis weight materials, standard oil based process inks (low solvent, high solids, that are 70% oxidizing or greater) are satisfactory provided your ink/water balance is well controlled. When printing lighter basis weights, standard inks (with solvents above 15% hydrocarbons), may cause unacceptable print distortion. In these cases, we recommend that you run special inks that have very low mineral oil content and that dry completely by oxidation. ***For best results, we strongly suggest that you contact your ink supplier.***

When printing POLYART®, you may find that you can cut back both the strength and amount of your fountain solution and still maintain a good ink and water balance. Cutting back on the amount and strength of your fountain solution will greatly reduce drying times. The ink tack should be in the 12 to 16 range.

The use of heavy ink film weights on lighter basis weights can cause some slight distortion. In these cases, 100% oxidizing inks are recommended. When printing process colors, the best results are obtained by printing all four colors in a single pass, on a multicolor press.

UV inks and coatings work very well on POLYART®. When printing process colors or multiple colors you will get the best results if you wet trap all your inks and then cure them all at once. If you inter-station dry your inks you may find that you have to reduce the intensity of your lamps to prevent slight shrinking of the POLYART. This shrinking could result in misregistration. For best results, we strongly suggest that you contact your coating supplier.

Aqueous coating can also work very well on POLYART®. When selecting water-based coating it is always best to contact your coating mfg to ensure the ink and coating will perform as expected. Work & turn coatings are often fast drying which can seal wet ink so if a work and turn formulation is used it must be breathable and adequate testing should be preformed prior to any production run. For best results, we strongly suggest that you contact your coating supplier.

PROOFING
POLYART® is not as absorbent as paper. Therefore, the ink holdout is much greater. It is best if proofing is done on POLYART rather than on a traditional paper substrate. If proofing is done on a traditional paper based substrate your ink films will most likely be excessive. If excessive ink is used during proofing, attempts to color match may result in offsetting during production runs. However, because of its ability to holdout ink, you can run low ink film weights and still get clear bold images. Total ink densities should not exceed 260% if possible. Under color removal (UCR) should be practiced in order to keep the ink films to a minimum.

OFFSET SPRAY POWDERS
Offset spray powders should be used when printing POLYART® offset or letterpress. With four-color process and/or solid background work, use non-vanishing starch based spray powders that are 25 micron or higher. These spray powders should be coated.

DRYING
POLYART® has an absorbent clay coating which helps to reduce drying time. Ink is usually run straight from the can. In some instances (heavy ink lay downs), it may require additional additives. You should always contact your ink manufacturer in these instances. Successful results can be obtained using both electron beam and infrared driers. Infrared driers should be set at 95 degrees F. or lower.

ARJOBEX

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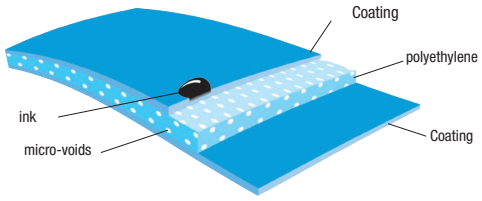

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If you have heavy ink coverage (example: built up dark colors), you may find fanning the lift 10 to 15 minutes after printing will speed up drying and prevent set off. You can repeat this if needed.

During drying on web-fed presses, the oven temperatures should not exceed 165° F. Like all plastic film, POLYART® is more easily stretched at high temperatures. Excessive web tension at high temperatures may result in misregistration.

STACKING
Stack heights should normally be lower than when printing paper. When printing heavy solids or process colors, you should keep stack heights at approximately 4 inches or less.

GUILLOTINING
POLYART® may be guillotined without difficulty the same as paper. Blades should be kept sharp and because of the compressibility of the sheet, light clamping pressures used.

PERFORATING
POLYART® may be sprocket punched or perforated for continuous forms applications. Due to the strength of POLYART®, when perforating use wide cuts with very small ties (bridges). Make sure that the cut runs off the sheet so tearing is initiated more easily.

DIE CUTTING
For die cutting, we recommend the use of hard steel rules. Where a retention point is required, it should be kept as small as possible to eliminate the risk of initiating a tear. All internal corners should always be radiuses, since a sharp notch will greatly reduce the internal tear strength.

DRILLING, PUNCHING, CORNERING
POLYART® can be drilled, cornered or punched. Cutting tools should be kept sharp and free of burs. Burs on the cutting tool will greatly reduce the internal tear strength. When drilling and cornering, it is important that a short dwell time is used in order to eliminate heat generation, which could cause fusion of the edges of the sheets. To prevent this, it is best to lubricate your tools every second or third drop with a wax stick or bees wax.

FOLDING
POLYART® can be folded like a coated paper on normal sheet folding machines. When accordion folding, the complete fold should be done in one pass if possible. Folding a 16 page signature using 51# or 61# weights can be achieved without scoring. On heavier weights, scoring is advised.

STITCHING & PERFECT BINDING
Polyart will stitch and section sew easily - when perfect binding it is best to contact your glue supplier.

TEMPERATURE & HUMIDITY
Best results are obtained at 70 degrees F. and 45%-60% humidity. The paper should acclimate to the press-room for a minimum of 24 hours.

SMALL OFFSET PRESSES
For best results, it is recommended that synthetic 100% oxidizing inks be used. Rubber based inks are not acceptable.

IF YOU HAVE NOT PRINTED POLYART® BEFORE, IT IS ALWAYS BEST TO RUN A TRIAL FIRST!
Contact us at (800) 765-9278 and we will be glad to provide you with samples for your trial. If you have any questions regarding this product, please contact us at the above number.

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