



ARJOWIGGINS

Printing & Finishing Natural Translucent Paper

Pre-testing

AW translucent paper is suitable for all types of traditional printing and finishing. We strongly recommend pre-testing whenever you do something new, particularly if using digital a press. Samples are available on request.

Storage and use conditions

- Store unopened in the original packaging away from open doors and windows where exposure to uncontrolled humidity or excessive heat or cold could occur. The ideal is an air conditioned environment similar to the press room.
- Store unopened in the press room for a minimum of 24 hours prior to use, longer if previously stored in cold conditions - refer to table.
- Only open the packaging when the paper is about to go on the press.
- Print room conditions are very important. For best results ensure the conditions are as near ideal as possible i.e., an RH of 45 - 55% and a temperature of 17 - 23°C (63-73°F).
- Never leave Natural Translucent uncovered - the paper must remain wrapped or covered with plastic between all stages of press and finishing processes.

Design and Pre-press

- If folding is a requirement then grain direction is important – Natural Translucent paper will always fold better when the fold is parallel to the grain direction. Consider this when designing the work.
- For adhesive binding, the binding should preferably be parallel to the grain direction.
- Where an image demands heavy ink application, consider the use of under colour removal (UCR) technique on the scanner. This can considerably cut drying times, especially for black.
- Avoid designs which demand large areas of solid composite colour. Avoid composite black if possible. Use Acraseal with caution.
- A 130 - 150 l.p.i screen is optimum - avoid screens above 250 l.p.i.

Printing inks

- Natural Translucent papers are extremely dense and non-porous; they will not absorb ink.
- Use hard drying, fully oxidising inks as used for plastics and foils. In-plant ink formulation is not recommended.
- General process inks are not suitable.
- Matte inks with a cobalt drier, or U.V. inks, can be used, though the heat from the U.V. lights may cause curl.
- Hydroactive drying agents can be added to the ink and/or fount as recommended by the ink supplier, but driers containing wax should not be used where varnish or lamination is subsequently required.
- Drying time of metallic inks, opaque white and other pantones can vary widely with ink colour, vehicle, and coverage.

Damping solution

- The ink/water solution should be run at an absolute minimum. Excess water will not be absorbed, or removed from the blanket, and will slow drying time.
- Damping solution should have a pH of 5.
- For conventional presses, take a little time and care and allow more drying time.
- For alcohol assisted presses, rinse all dampers thoroughly and fill with fresh water before setting up.
- Alcohol damping (~ 10%) can be beneficial to reduce the amount of water going on to the plate, though this needs to be monitored as excess may affect the ink tint.
- The fount solution should be compatible with the inks according to manufacturers' recommendations.

Printing

- There is no coating, no picking, no dust, no debris.*
- We recommend that 63g/m² is used for single colour work only. 73g/m² and upwards are recommended for multi-colour printing.
- Long or short grain may be used depending on the final product. The preferred choice is long grain, with the grain direction and long edge parallel to the print rolls, e.g. at right angles to the direction of feed.
- To ensure uniform feeding we recommend sheets are well aired during loading.
- If magic eye tripping out problems are encountered during feeding, adjust the photo receptor to a finer sensitivity if possible.
- To achieve good registration on both sides of a sheet avoid undue pressures and minimise damping.
- Rack in small piles - suggested maximum 500 sheets for grammages up to 112g/m², 250 sheets for heavier weights, depending on ink density.
- Protect paper stacks with stack covers between colours or pauses in operation.
- Ensure print room environment does not change significantly within a run or between colours.
- Fewer passes through the press the better.
- Printing in damp conditions may increase drying times.
- Avoid exposure to excessive heat (e.g. from infra-red) with the lighter weight papers particularly.
- Leave undisturbed for 24 hours to prevent set-off and allow next day processing.

* The Metallic products differ from the others in having a surface coating. When printing these by offset litho it may be necessary to clean the blanket periodically.

Spraying

- Use a coated spray powder of normal fineness of 15-20 microns to prevent set-off and improve air circulation.
- Increase the amount of spray powder used, but only use sparingly if the job is to be later used as a drawing paper.

Finishing

- Pre-testing of all new operations is recommended prior to production.
- The paper must remain wrapped or covered between all stages of the finishing processes.
- The finishing environment should be controlled as for the press room - if not, allow the paper to acclimatise.
- Where finishing is complex it can help to seal the ink with a varnish. Aqueous coatings are not recommended. If protection is required consider spot UV varnish. Consult your varnish supplier.

Trimming / Cutting

- Do not use a newly sharpened blade - it may chip if grinding marks remain in the sharpened edge.
- A slightly dull but polished 23° bevel angle blade is ideal.
- Cut in small stacks – maximum thickness 5 cm (2").

Folding

- Grain direction is important for a good fold, especially on heavier weight paper (140 g/m² + above) to avoid cracking. Predominant folds should be made parallel to the grain direction where possible.
- Beware of folding in low humidity conditions, or where the paper may have lost moisture during an earlier process
- Grammages less than 92g/m² are not recommended for use on high speed buckle folders. Lighter weight can be run satisfactorily but at reduced speeds.
- Fine tooth perforating wheel may be used with care when multiple folds are required.
- Suitable for knife folding.

- Channel creasing is recommended only for heavier weight tracings - the lighter papers will not give a good bead.
- Pre-creasing is recommended for 140 gsm + above using a rounded creasing tool and matrix.
- For grammages of 200 and above we recommend two parallel creases with a gutter to form the spine of the crease.
- Translucent paper does not delaminate like a conventional multi-ply card or board during creasing and the usual working conventions based on substrate thickness may be inappropriate. Some experimentation is therefore strongly recommended to find the best combination of channel width and depth, and creasing rule width.
- Avoid sharp scoring tools
- Fold away from the bead. This is contrary to conventional papers.
- It has been observed that the strength of a folded sheet of translucent paper is influenced by the side from which the fold is made.
- For maximum strength, make the fold with the upper surface (*as supplied in sheets*) outside.
- For material in reel form, fold with the outside (*as originally supplied*) remaining outside.

Embossing

- Avoid using very sharp tools.
- The use of metal dies is recommended.

Foil Stamping / Blocking

- For fine and intricate designs, the generally smoother surface of the lighter grammages may give better results. Pre-testing is strongly recommended.

Binding

- Natural translucent paper can be saddle stitched / stapled, round wires being preferred, but avoid grammages below 90-95 g/m² for outer wraps and centre pages.
- For adhesive binding, the binding should preferably be parallel to the grain direction.
- Hot melt glues are preferable – use aqueous adhesives sparingly.
- Caution – materials adjacent to the Translucent in the finished job should have similar moisture content.
- Wrap the finished product in moisture proof packing material.
- Care should be taken to re-wrap any material for storage - try to re-use the original wrap if possible.

Curl

Should you experience a curl problem, this is most likely to be temperature or humidity related. Check the following:

1. Has the paper acclimatised in the work area for at least 24 hours?
2. Has the temperature and/or humidity changed dramatically in the last 24 hours? If so, then the paper must re-acclimatise.
3. Has the paper remained wrapped or covered between all press and finishing processes?

AW has endeavoured to ensure this information is correct; however we do not accept liability for any errors or omissions.