MILFORD ASTOR

A DIVISION OF ALDUS

PAD PRINTING PLATES

INFORMATION GUIDE

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Steel Printing Plates

0.25mm Thin Steel Printing Plates
Thin steel plates have a precision ground surface. They are etched on one side only and can only be used on ink cup machines. They are supplied punched or un-punched to suit various machine make and models. Expected life of the plates is around 60,000 impressions.

0.5mm Thin Steel Printing Plates
0.5mm thin steel plates have a polished surface. They can be etched on one side and are suitable for open ink tray and some sealed ink cup machines. The plates can be supplied punched or un-punched to suit most types of machines. As the plates contain a percentage of chrome, they can be used for medium to long production runs. The life expectancy of the plate is around 150,000 impressions.

10mm Thick Steel Printing Plates
Thick steel plates can be supplied lapped on one or both sides. Plates are etched on one side only. They are suitable for open ink tray and ink cup machines. Made from hardened steel (62 Hrc) with a life span of around one million impressions.

10mm Chrome Thick Steel Printing Plates
Chrome thick steel plates contain a percentage of chrome (so are corrosion resistant) and hardened to 63 Hrc which results in an extremely long life of around 2 million impressions.
Suitable for both open ink tray and ink cup machines. These plates will produce the finest print quality.

*We cannot guarantee the number of impressions as the above figures are based on plates being properly cleaned, stored and maintained in the correct conditions. Variables such as equipment type and ink choices will effect plate life.

STORING AND CARING FOR YOUR STEEL PLATES

Steel Plates should be stored in the original Blue VCI Paper that they are delivered in. Alternatively they can be coated liberally with plate oil (order code: MOAPLATEOIL), once plate oil is dry they can be wrapped in greaseproof paper. This wrapping will prevent corrosion allowing plates to be reused at a later date.

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Polymer Printing Plates

Aqua Gold Printing Plates (MOA07)

Aqua Gold water wash plates are green/ gold in colour, have a thickness of 0.73mm and when cured have a shore D hardness of 65. They are suitable for open ink tray machines. The nylon polymer provides a high quality image reproduction, ideal for half tones and fine details or lines.

Red Water Wash Plates (MOA09)

Red Water wash plates are red in colour, have a thickness of 0.73mm and when cured have a shore hardness of around 75. The high density of the cross linked polymer means this plate is suitable for open ink tray and ink cup machines. The expected life of the plate is around 20,000 impressions. The plate also provides high quality image reproduction for half tones and fine details or lines.

AlcaTuff Printing Plates (MOA04)

AlcaTuff alcohol wash plates are red in colour, have a thickness of 0.52mm, and when cured have a shore D hardness of 90. The high abrasion resistance of the plates means they are ideal for long runs of 50,000 impressions. This plate is best used for high resolution images with half tones and fine details or lines, resulting in superior reproduction quality for complex printed images. Alcatuff plates are particularly suited for closed ink cup machines.

Making Polymer Plates

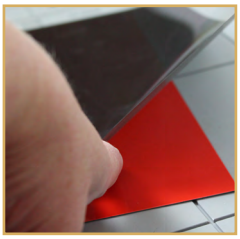
Step 1
Ensure the artwork film, diffusion film, screen positive and exposure unit glass are clean and free of all dirt and dust.

Step 2
Remove the protective covering (plastic film) from the face of the plate

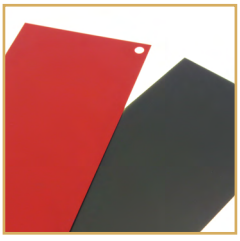
Step 3
Place the plate in the exposure unit face up, position the film positive (emulsion side down) on to the plate. Ensure film positive is lined up and straight on the plate.

Step 4
Close exposure unit and turn on vaccuum (if applicable). Turn on the UV lights and expose your plate for the specified time.

Step 5
If your film is pre-screened (has a dot in it) skip this step.
If your film is solid (is 100% solid black in the image areas) you will need to expose a screen in to your plate. Repeat steps 1-4 using your screen positive instead of the artwork film.

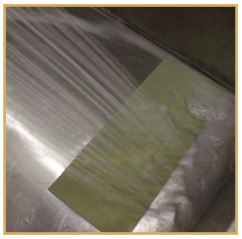


Step 6
Remove plate from the exposure unit and washout using the appropriate solution (alcohol or water).



NOTE: ALWAYS READ THE SDS AND USE APPROPRIATE PPE PRIOR TO USING CHEMICALS

Alcohol Washout - Pour approx 1cm of Nyloplate Alcohol Wash Solution (MOAALCWASH) in to a plastic lidded tub that is big enough to hold the plate and has plenty of room to move the plush cloth brush around. Immerse the exposed plate in the solution and rub in multiply directions or in a figure 8 motion using the plastic cliché washout brush (MO103627) for approx 2 minutes.
The remaining solution in the tub can be kept for the next plate, ensure the lid is sealed to prevent evaporation.

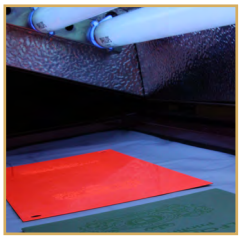


Water Washout - Place the plate in to a sink and preferably using a hose sprayer with a shower setting and medium/ hard water pressure (the same as a strong shower) spray the plate and while (wearing gloves) gently rub with your finger tips until there are no more suds forming on the surface of the plate.

Step 7

The image should by now appear as an etched depression that can be felt with finger tips. Remove plate from solution and using low pressure compressed air blow away any excess solution until the plate is dry on both sides.

Step 8



Place the dry plate back in to the exposure unit directly exposed to the UV lights (not behind the diffusion film) and expose for approx 20 minutes to post cure and harden the plate.
The plate is now ready for use!

FINDING THE CORRECT EXPOSURE TIME

If there isn't a specific exposure time set, as a starting point use 4 minutes for alcohol washout plates and 2 minutes for water washout plates - adjust exposure accordingly as each exposure unit is different.

Enough exposure for the image to appear in the plate is required but not so long that the plate over hardens and ends up too shallow.

Longer exposure time = shallower plate,
Shorter exposure time = deeper plate

RECORD THE EXPOSURE TIME HERE:

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