

Salt Printing - Basic Process Notes

Equipment

Safety

Disposable gloves
Goggles
Respirator
Lab coat

Preparation/Processing

1 litre graduated Jug
Small measuring cylinder (~ 50ml)
Scale (minimum 1g accuracy)
Disposable weighing pans (cup cake paper cases)
Paper (such as hot-pressed watercolour paper, printmaking paper - that can take 30 minutes washing)
Shallow plastic trays (such as very clean trays for stop and fix in the darkroom)
Pencil
Plastic or glass spatula/stirring rod
Glass beaker or bottles (for silver solution - no metal!)
Plastic pipettes
Solution applicators - metal free - brush, foam, rod etc. (Mark as "Silver Only")

Optional

Lightproof black bags (to hold sensitised paper or exposed paper)
Printing frame - clip (check glass does not have a UV coating) frame, contact frame, hinged back, clips and card etc
UV 'party' light or other UV exposure box
Hairdryer
Scissors / guillotine / knife / ruler (for paper preparation)

Chemicals

Read the safety information for handling each!

Distilled Water (Demineralised water/Battery water - available in garages)
Sodium Chloride (Sea Salt/Kosher Salt - not table salt which has additives)
Citric Acid (Lemon juice could be used if granules not available)
Sodium Thiosulphate (aka Hypo - available from Silverprint)
Sodium Carbonate (Sodium Bicarbonate may be substituted)
Silver Nitrate (available from Silverprint)

Part 1 - Salting the paper

In normal light.

Prepare a 20% salt solution.

Weigh 10g of sodium chloride.

Measure 500ml of distilled water.

Dissolve the salt in the water.

Place solution in a clean tray.

Cut or tear paper to size.

Mark the back with pencil to indicate it has been salted e.g. "B"

Float front side down on the tray of salt solution for 5 minutes.

Allow the paper to completely dry. (Use a hairdryer if required.)

The salted paper may be stored indefinitely.

Part 2 - Sensitising the paper

In red light.

Prepare a 10% (warm paler colour) to 12% (cool darker colour) silver solution.

Weigh 5g (for 10%) or 6g (for 12%) of Silver Nitrate (Use safety equipment! The powder may need coxed out with a spatula. Better to use 2 weighing pans and pour out slightly more than needed, break up any lumps, then re-weigh in the other pan accurately and return excess to bottle.)

Measure 50ml of distilled water.

Mix the Silver Nitrate and water to form a solution in the glass beaker.

Store the solution in red light or dark conditions.

Use up within a couple of days.

Mark on the back in pencil that the paper is sensitised e.g. "S"

Coat the salted side of the paper using a metal free - brush, foam applicator, coating rod.

Coat quickly as puddles of solution on the paper will develop into dark stains.

Allow to dry completely in darkness or red light. Using a hairdryer at this stage may effect the coatings.

Use paper as soon as possible after coating.

The silver solution may be kept in a light proof, air proof, metal free container but will eventually go off.

Part 3 - Exposing the image.

Contact print - a negative/ digital negative - or use for photograms.

Use a printing frame for sharper printing of negatives.

Prepare sensitised paper and negative under red light.

The emulsion side of the negative should be against the coated side of the paper. Negative on top of paper.

Use a black bag for transportation to light source and then to processing area if needed.

Process prints as soon as possible after exposure.

Under a UV 'party' light. (Separate room)

Place light on blocks a few inches above a heat proof surface.

Turn light on and allow bulb to heat up for a few minutes.
Put paper with negative/photogram under the centre.
Turn paper halfway through exposure time for even coverage.
Negatives / digital negatives ~ 15 to 20 mins.
Photograms ~ 20 mins.
Allow light to cool down before packing away!

In daylight.

UV dependant - anywhere from a few minutes to a few hours.

Part 4 - Processing the print.

Prepare the salt rinse bath.

Weigh 10g citric acid.

Weigh 30g sodium chloride.

Measure 1l of water (distilled is recommended but tap worked fine).

Dissolve into a clean tray.

Prepare the fix bath. (This may be stored and reused for a few days)

Weigh 50g Sodium Thiosulphate (Hypo)

Weigh 1g Sodium Carbonate

Measure 500ml of water (distilled is recommended but tap worked fine).

Place the water in a clean tray and sprinkle the powders on top while gently agitating to dissolve (The Sodium Thiosulphate forms big clumps if dumped in, which can be difficult to break up).

Prepare 2 water trays or use a waterfall sink.

In red light.

Once the print has been exposed place in the salt rinse bath for 5 minutes, use gentle agitation.

Then give the print a short rinse in clean water. (Some recommend to rinse before the salt rinse bath too.)

Transfer the print to the fix bath and leave for no more than 1 minute, use gentle agitation.

Finally wash the print for a minimum of 30 minutes (white light is fine for this) in running water or with several changes of water.

Dry naturally or gently hairdryer on cool. The print will become less 'orange' over time.

Dispose of any remaining chemicals carefully.

Anything with silver content should not go down the sink!

Notes on Paper.

Blockingford (90lb) - Just withstands the washing process, should not be washed longer than 30 mins.

Fabiano Artistico - Just withstands the washing process, should not be washed longer than 30 mins.

Fabiano 5 (140lb) - Withstands the washing process but has a more pronounced texture.