

B. POWDER DYE USAGE

Powder is the primary source material. It is the most compact light-weight form of dye available. This makes it the best freight thrifty way to buy dye for those living outside New Zealand. It is also the least expensive or perishable form.

The dyes in the Procolour range have been carefully chosen to minimise toxicity. However, **as powder dyes are industrial strength chemicals the following basic care and handling measures are recommended:**

- Store powder dyes in air tight containers away from children, pets, dampness, and sunlight.
- Avoid using powders in draughty areas to minimise the risk of airborne migration.
- Avoid excessive skin contact with powder or liquid dyes.
- Avoid breathing powder dust or the vapour from hot liquid dyes.
- Spread damp newspaper over the work surface when dispensing powder dyes, so that spillages can be detected and disposed of before the dye has a chance to migrate further.

THE FUNCTION OF EACH INGREDIENT IN PROCOLOUR LIQUID DYES

UREA is a fibre-swelling agent and a dye solvent. In tandem with DYESOLVE® it assists the dye to retain solubility and prevents the formation of a precipitate or sediment during storage in liquid form. However, urea concentrations above 10 % can cause definition loss during steam fixation [i.e. 'blowout'].

METHYLATED SPIRITS is a slurring agent for dye powders which are prone to lumping when they're dissolved in hot water. However, at concentrations above 3 % the meths content in liquid dyes can inhibit thickening when combined with MEDIUM or THICK RESISTAD®.

DYESOLVE® is a dye dissolving and fibre penetrating agent.

HEATFIX MEDIUM® chemically produces the moisture necessary for fixation when using dry heat methods to fix the dye.

WATER. It is important to use boiling water for dissolving powder dyes. The water should be 'soft' and have a pH of about 8. If your tap water does not meet these criteria, then you'll have to collect and use rainwater.

DIFFUSANT is a penetrating agent which helps the liquid dye to spread and wick into the fibre. Concentrations above 2 % do not seem to further enhance DIFFUSANT performance. When using dyes to make print pastes, for sharp definition designs, the DIFFUSANT concentration should not exceed 1 % or the definition may be compromised.

ACETIC ACID 50 %, provides the correct pH of 3 to 6 necessary to promote 'P' and 'PC' dye fixation on protein fibres and liquid dye longevity.

LEVELLER is used for pale pastel STEAMFIX® liquid dye colours only. LEVELLER prevents premature dye strike and therefore promotes pastel shade evenness.

PROCEDURE FOR MAKING LIQUID DYES FROM POWDER WITHOUT SCALES

MAKING LIQUID STEAMFIX DYES

Using the Table III (column 2 – 8) recipes.

Procolour supplies all dye colours in exactly the right powder amounts to make 1 litre = 1000g of liquid dye, see Table III (column 14).

Make the liquid STEAMFIX dye in the following way:

Put this litre dye powder amount into a metric measuring jug that is able to withstand boiling water.

Following the Table III recipe, add the 30g of METHYLATED SPIRITS **if required** (use the 50 ml syringe supplied by Procolour or 30g = 30 ml = 30 cc = 2 TBSP tablespoons). Stir to make a uniform paste.

Add the 50g or 80g of UREA to the jug (50g = ? level cup, 80g = ½ level cup).

Add the 30g of DYESOLVE **if required** (30g = 30 ml = 2 TBSP).

Add the 10g of DIFFUSANT (use the 10 ml syringe supplied by Procolour or 10g = 10 ml = 2 TSP teaspoons).

Add the 2g of ACETIC ACID 50% (use the 10ml syringe supplied by Procolour or 2g = 2 ml = ½ TSP teaspoon). Because ACETIC ACID 50% cannot be air-mailed, you can substitute this for 15g of WHITE VINEGAR (15g = 15 ml = 1 TBSP tablespoon).

Mix the above into a uniform paste.

Add BOILING WATER up to the 1 litre mark on the jug and stir until the paste is thoroughly dissolved.

MAKING LIQUID HEATFIX DYES

Using the Table III (column 9 –13) recipes.

Procolour supplies all dye colours in exactly the right powder amounts to make 1 litre = 1000g of liquid dye, see Table III (column 14).

Make the liquid HEATFIX dye in the following way:

Put this litre dye powder amount into a metric measuring jug that is able to withstand boiling water.

Following the Table III recipe, add the 250g of HEATFIX MEDIUM. (250g = 1 ½ level cups).

Add the 10g of DIFFUSANT (use the 10 ml syringe supplied by Procolour or 10g = 10 ml = 2 TSP teaspoons).

Add the 2g ACETIC ACID 50% (use the 10 ml syringe or 2g = ½ TSP). Because ACETIC ACID 50% cannot be air-mailed, you can substitute this for 15g of WHITE VINEGAR (15g = 15 ml = 1 TBSP tablespoon).

Mix the above into a uniform paste.

Add BOILING WATER up to the 1 litre mark on the jug and stir until the paste is thoroughly dissolved.

MAKING LIQUID SELFFIX DYES

SELFFIX liquid dyes can only be made from SELFFIX powder dyes

Procolour supplies all dye colours in exactly the right powder amount to make 1 litre = 1000g of liquid dye.

Make the liquid SELFFIX dye in the following way:

Put this litre dye powder amount into a metric measuring jug that is able to withstand boiling water.

Add the 150g of UREA (150g = ¾ cup).

Add the 30g of DYESOLVE (30g = 30 ml = 2 TBSP tablespoons).

Mix the above into a uniform paste.

Add BOILING WATER up to the 1 litre mark on the jug and stir until the paste is thoroughly dissolved.