

# Learn to dye

microwave dyeing silk scarf



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WHEELS & LOOMS

spinning | weaving | carding | felting | knitting | dyeing

# Exploring colour with wool dyes

Dyeing your own fibre is fun and easy to do. Ashford wool dyes allow you to create every colour of the rainbow time after time using simple techniques.

## Exhaust Dyeing

Exhaust dyeing means the dye reacts with the fibre, water and additives until it is fully absorbed by the fibre.

To test whether your dye liquor has exhausted use a teaspoon to press into the fibre: when the liquid on the teaspoon appears clear then the dye has exhausted. Ashford wool dyes are acid exhaust dyes and require heat to set the dye into the fibre. Ashford dyes are for use only on protein fibre such as wool and silk.

## Terms used in exhaust dyeing:

Mordant (White Vinegar) – Assists the dye to fix to the fibre.

Wetting Agent (Liquid detergent) – This coats the fibre causing the dye molecules to move evenly around the fibre, to prevent patchy or uneven dyeing.

## To make a 1% solution:

10gms of dye makes 1 litre

5gms of dye makes 500ml

2gms of dye makes 200ml

## The easiest dye solution is:

1 litre mix containing 10 gms of dye powder, 150 ml of white vinegar and 850 ml of water, making 1 litre in total. This solution is most commonly used in our instructions for rainbow dyeing and for teaching purposes.

## This easy formulation for using Ashford wool dyes:

| Weight of Fibre | White Vinegar | Dye Powder |
|-----------------|---------------|------------|
| 1 kilo          | 150 ml        | 10 gms     |
| 500 gms         | 75 ml         | 5 gms      |
| 100 gms         | 15 ml         | 1 gm       |

Remember: The stronger the dye powder, the more vinegar is used.

Note: Dye powders can surprisingly vary in weight/volume. We recommend weighing for the most accurate results.

# Dyeing with Ashford dyes

## Safety Guidelines

It is important to follow these guidelines as dyeing can be hazardous.

Safety first. Always...

- Wear rubber or plastic gloves, when mixing and dyeing.
- Wear a face-mask when handling any powders or if you are in an enclosed area with the dye fumes.
- Cover all surfaces.
- Use dye equipment for dyeing only .
- Label and date all dyes and solutions.
- Lock away if possible.
- Neutralize all dye baths at the completion of dyeing and before disposal. Use baking soda to neutralize the acid in the water.

## Handy Hints

- Avoid temperature shocks between soaking, dyeing or rinsing stages as this can damage or shrink the fibre. Handle fibres gently to prevent felting.
- Never put animal fibres into the tumble dryer, as this causes felting.
- The amount of dye used is always in ratio to the dry weight of fibre to be dyed. If the weight of fibre increases, the weight of dye increases proportionally to achieve the same dye shade. Always weigh the fibre first. If you have too much dye to the weight of the fibre, it will not exhaust.
- Always mix dye with hot water, as this dissolves the fine granules/powder.

## Materials and equipment required

- Dyepot – needs to be large enough to hold fibre and sufficient water for dyeing. A lid is required to reduce condensation and exclude light. Stainless steel is ideal, because it does not react with the dye. Copper, brass and iron react with metal salts and “saddens” the dye.
- Stainless steel or plastic spoons to be used when stirring dye or mordant (wooden spoons or dowel stain and can transfer dye when wet).
- Rubber gloves protect hands from dyes.
- Face-masks are required for handling dry dye powder and avoiding breathing fumes.
- Cream cleanser neutralizes the dye and is excellent for removing stains from surfaces.
- Baking soda should always be used when discarding dye liquor down household systems as this neutralizes the solutions.
- Levellers or wetting agents are added to the dye bath to prevent patchy or uneven dyeing. Use a neutral liquid detergent as a leveller. To each litre of water add 1 ml of liquid detergent.

# MICROWAVE DYEING

## HAND-DYED SILK SCARF

### You will need:

- 1 Silk scarf
- Paint brushes
- Dishwashing Liquid
- Pre-mixed dyes – 1% solution
- Paint Tray
- Bucket
- Plastic cling film (Glad wrap)
- Rubber gloves
- Table – long enough for scarf and cover with plastic
- Microwave (used only for dyeing)

01



Soak the scarf in the bucket with  $\frac{1}{2}$  tsp of dishwashing liquid for 30 minutes. Remove the scarf from the bucket and squeeze out excess water.

02



Lay out a length of cling film long enough to place the scarf on and enough to turn in edges.



Lay out the scarf. Paint on your dyes, blending the colours together. Ensure the dye has covered the surface.



Place another piece of plastic cling film over the complete scarf.



Fold in edges to make a parcel.



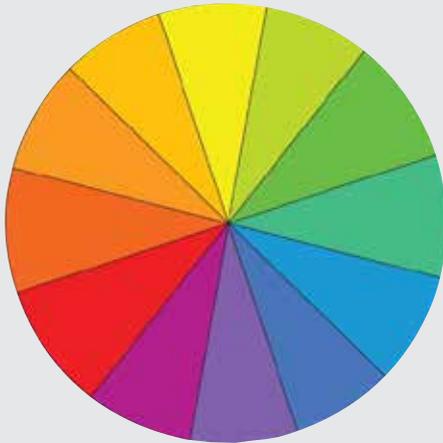
Put into the microwave and cook on high for 1 – 1 ½ mins. Allow to cool, before removing the plastic cling film.



Rinse out and dry in the shade. Iron using the silk setting, while still damp.

### Colour combinations to try :

1. Yellow, Blue & Green
2. Purple, Teal and Hot Pink
3. Scarlet & Brown
4. Rust, Black & Green
5. Yellow, Rust & Green



The colour wheel has three primary colours - yellow, scarlet and blue - from which all other colours are mixed.

#### Secondary Colours:

Yellow + Blue = Green  
 Blue + Red = Violet  
 Red + Yellow = Orange

#### Tertiary Colours:

Blue + Violet = Blue-Violet  
 Blue + Green = Blue-Green  
 Yellow + Green = Yellow-Green  
 Yellow + Orange = Yellow-Orange  
 Red + Orange = Red-Orange  
 Red + Violet = Red Violet

The samples have been made using the 3 primary colours - yellow, scarlet and blue.

Green = 1/4 tsp yellow  
 1/4 tsp blue

Blueberry = 1/4 tsp blue  
 1/8 tsp scarlet

Peach = 1/4 tsp scarlet  
 1/8 tsp green  
 drop of blue

Violet = 1/4 tsp scarlet  
 1/4 tsp blue

Orange = 1/4 tsp yellow  
 1/4 tsp scarlet

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