Gutta is a strong solvent based resist which is ready to use from the bottle. It is available in clear, gold, silver and black. These coloured guttas will remain in the fabric, while clear gutta is removed by dry cleaning. Note: the metallic effect of the latter may change slightly if dry cleaned.

Gutta is quick drying, and should always be used in ventilated conditions. If gutta becomes thick, it may be thinned with small amounts of rubber cement thinner (available in any hardware store). It is best to store Gutta bottles upside down to stop the solvent from evaporating out of the lid.

Emulsified Wax is a water based, non-toxic resist. It is cold wax in a cream coloured liquid emulsion, therefore easy to see on white fabric. It may be used straight from the bottle for most applications. Emulsified wax thickener may be added for work on extra fine fabrics. Emulsified wax may be coloured with the addition of dye. If the dye is in liquid solution, the wax may require thickening for normal application. Emulsified wax is easily removed from the fabric by washing with a mild soap in warm water. With storage it may become lumpy, simply strain it through a fine sieve or cheesecloth to restore smoothness.

Sabra Silk Water soluble resists such as “Sabra Silk” require little drying time and therefore allow painting to begin immediately after resist application. Applied straight they are non-yellowing and may be tinted with powder dyes for coloured lines or brush strokes. They are easy and safe to use and will wash out of the fabric with cool water after the dye is set. This resist creates a beautiful line but is fragile and easily broken down, care must be taken when painting close to the resist.

"Pebeo's" Water Based Gutta Boasting eleven vibrant colours and clear, Pebeo’s Water Based Gutta comes in convenient squeeze tubes. They are ready to use and create a strong barrier to dye. Apply resist from the tube, using enough pressure to push it through to the reverse side of cloth, if this pressure is not applied this resist will sit heavy on the surface and alter the hand of the cloth. The clear is easily rinsed out in final washing of cloth and the coloured ones stay in after the heat fixing of paints or the steam setting of dyes.

Resists For Handpainting: When handpainting dye on fine fabrics such as silk, a strong line of resist can be used to control the flow of dye and keep colours separate. The resist line must penetrate to the other side of the fabric and all lines must connect solidly and dry completely to form a strong barrier. Like in a stained glass window a sharply defined border to the areas of colour is achieved. These resists are clear or coloured and can be applied using a squeeze bottle, pipette, silkscreen, brush or air pen. Care should be taken when applying dye. Pooling of excess dye or vigorous brush action can break down the barrier. Allow dye to travel naturally and gently toward the resist line.

Shibori: (tie-dye, bandhani, plongee)
Prior to dyeing, shaping cloth by plucking, pinching, twisting, staining, folding and clamping the cloth secure the inner areas and leave it unaffected by dye. Or they may be a liquid substance that once applied to the cloth dries or solidifies on the fibres creating a barrier. This barrier prevents dye from reaching the areas underneath. These resists may be water based, solvent based, or made with natural products.

Ikat Weaving:
This is a resist treatment in which the yarns to be woven (either warp, weft or both), are organized, bound and dyed before the actual weaving takes place. The resisted areas meet on the loom and line up to create intricate patterns.

Tools for binding:
Ikat tape, elastic bands or strong uncoloured thread that holds a strong knot and resists the dye are effective for binding. Embroidery needles and waxed dental floss are useful for stitching. PVC piping or large glass jars can be used for pole wrapping. Wood, or plexiglass shapes can be used with ‘C’ clamps for clamping. The shibori tool sold at Maiwa is very useful for making tiny puckers.

The information given herein and otherwise supplied to users is based on our general experience and, where applicable, on the results of tests on samples of typical manufacture. However because of the many factors which are outside our knowledge and control which can effect the use of these products, we nor the manufacturer can accept liability for any injury, loss or damage resulting from reliance upon such information.
**Liquid Resists:**

**Hot Wax:** (batik)

Wax is one of the oldest forms of textile resist and is perhaps the strongest. It is possible to use it in long, cool, immersion dyebaths and in hand painting projects. Natural beeswax, microcrystalline wax and paraffin wax can all be used in numerous combinations for a variety of effects. Natural beeswax is malleable and tacky and when mixed to a ratio of one to one with paraffin creates a strong resist and the characteristic crackle that defines batik. It may also be used at a ratio of 70% beeswax to 30% paraffin to create concise detail with little crackle. Microcrystalline wax is also known as synthetic beeswax, it is a strong batik wax that when used alone gives a light crackle effect. It can withstand the alkali of a typical dye bath well and is most often used to strengthen a beeswax and paraffin mixture.

Wax is most conveniently melted in an electric frying pan with a working thermostat, or can be heated in a small metal container on a heating element, or over an alcohol burner.

Do not exceed a melting point of 260 °F, as the wax will begin to break down and discolor the fabric. Temperatures too high will cause wax to smoke or even ignite.

Wax may be applied with a brush, a tjanting tool (metal drawing tool for molten wax) or a tjap (metal printing block). Maiwa sells several types of tjanting tools that give a variety of effects and the Japanese ‘rofude’ brush. The rofude brush is a specialized, natural bristle batik brush that will not disintegrate in hot wax.

Wax is removed from cloth through boiling, ironing or dry cleaning.

**NOTE:** PROPER VENTILATION IN YOUR WORK AREA IS A MUST WHEN WORKING WITH HOT WAX.

**Presist:**

Presist is a water based resist that combines the crisp line look of hot wax and convenience of starch paste resist. Presist works well with hand applications of dye or discharge agents. It will not withstand immersion dyeing. It may be applied to silks and other fine fabrics for a strong resist line or to heavier cottons etc. for interesting textile effects.

Lay fabric on a flat surface or stretch on a frame. Apply presist using a fine line applicator, brush, stamp, sponge or silkscreen. Allow presist to dry completely, paint your design with fabric paints or dye. For clear resist lines, carefully paint up to the edges of the resist. Allow paint or dye to dry, then set according to their directions. Presist will not be harmed by heat or steam fixing treatments. Presist will wash out of fabric after a soak in warm water or during the rinsing stage of dyeing.

**Potato Dextrin:**

Potato Dextrin is a starch resist that can produce lace like patterns and crackle lines similar to batik. Most often it is used to resist an overall area but printing and painting the paste also have unique results. The tendency of this resist is to crack in the drying process and it is this breaking of the resist that causes the unique dye textures. Remember that while the potato dextrin is drying on the cloth, it can be manipulated with scratches and stamps or just left to crackle. Immersion dyeing is impractical but thickened dyes or discharging agents can be applied through the cracks and opened areas. With many variable determining the outcome, it is wise to do plenty of experimenting.

**Recipe:**

- Place 2 cups water into a pot and bring to a boil.
- Slowly sift in 2 1/2 cups potato dextrin while blending with a whisk or electric blender.
- Allow mixture to slightly cool. Temperatures too high will cause wax to smoke or even ignite.

**Rice Paste:**

Recipes for rice paste resist are found in many cultures. The one we have found to be exceptional is the Japanese Nori Paste. This is a paste consisting of rice flour, rice bran, salt, water and calx. It has the advantage of being extremely strong, withstanding short, cool dyebath immersions like indigo or hand applications. It may be applied to cloth using a mulberry paper cone and a brass tip, or screened through a mulberry paper stencil. Nori paste is water based and easy to remove. Just soak cloth in warm water then rinse the paste off. Maiwa has excellent manuals and data sheets with concise recipes and instructions. Maiwa also carries all the specialized, Japanese ingredients and accessories for this process.

Although no chemical is entirely free from hazard - provided that good standards of studio hygiene are observed in their use and storage - these products present a low to no health risk. When working with dyes and chemicals wear rubber gloves and work in a well ventilated area. Keep all dyes and chemicals away from children.

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**Recipe:**

- Place 2 cups water into a pot and bring to a boil.
- Slowly sift in 2 1/2 cups potato dextrin while blending with a whisk or electric blender.
- Allow mixture to slightly cool. Consistency should resemble smooth gravy.

**Note:** For higher contrasts in design, try dissolving 3 tsp of soda ash in the boiling water. Paste can be stored in the refrigerator, in an air tight container, for approximately one month. The paste must be reheated in a double boiler or a microwave prior to use.

**Procedure:**

1. Prepare thickened dyes according to dye instructions. Scour cloth and prepare it for direct application of dyes (See directions for batching). Hang to dry.
2. Potato dextrin will become very tacky and it is helpful to prepare a surface on which it will not stick. Fix a drop cloth topped with a thin piece of plastic to a table surface. Stretch the cloth to be resisted on top, securing it by pinning through to the drop cloth. Fine fabrics like silk can be stretched on a stretcher frame.
3. Squeeze a smooth layer of warm paste over the fabric. Or try block printing and handpainting a design with the paste. The pastes temperature and thickness determines the amount and style of crackle. Keep fabric very tight and allow paste to dry completely while still stretched (This could take up to three days).
4. Apply thickened dye to cracks and open areas with a brush or sponge then follow the dyes instructions for fixing and rinsing. The potato dextrine should wash away easily.