

Lascaux Hard resist

Composition

Based on acrylic copolymer

This new-generation acid resist has been specially designed as part of the acrylic-resist etching system. The lines and marks which can be generated by using the Lascaux Hard resist are comparable to those offered by traditional hard grounds. It is painted on the plate in a thin even layer which when dry can be drawn into with etching tools. As the waxy resist allows free movement of the etching needle, delicate line drawings can be made. The resist may be used in its clear form or coloured after application. Broader open marks can also be created in the layer of resist.

Properties

Lascaux Hard resist is water-soluble, ready to use, non-toxic and suitable for use on copper, brass, zinc, steel and aluminium. Plates should be correctly prepared, whether unbitten or previously etched (e.g. aquatint, deep open bite).

The resist is highly acid resistant and durable. It is compatible with the other Lascaux resists and photopolymer resists such as Photec. Lascaux Hard resist may also be used to create a variety of effects on collagraph plates (see Lascaux resists and collagraph methods data sheet for details).

Directions

Preparing, graining and degreasing the plate:

The edges of the plate should be bevelled with a file and the sharpness of the corners rounded off. The edges and flat sides should be wiped or washed to remove any grit or metal filings. Both sides of the plate may then be finely grained to accept the resists (steel is exempt as it has a natural grain). Working on a non-porous clean work board, a mixture of pumice powder or carborundum (400) and a little water may be rubbed in a circular motion over the entire plate surface with a polishing roll. This traditional procedure will create a delicate regular grain over the entire surface which will help the resist to adhere to the plate (later when the plate has been etched and proofed this fine grain will print as a light tone but may easily be polished smooth to print as a white). The plate should then be degreased with a specialist (screenprinting) or household degreaser (such as Cif cleaner). Ammonia should not be used. Both sides of the plate should be scrubbed well with the degreaser and left for a few minutes before being rinsed with water. If the water is still being repelled from the surfaces of the plate the degreasing process should be repeated. Most degreasers are powerful alkalines and the residues can weaken the resist. An acidic solution such as lemon juice in water or CPS Screen Degreaser (www.cps.dk) diluted in water can be applied to the plate to remove any traces of the alkaline degreaser. After a few minutes the plate should be rinsed and dried.

Care should be taken to protect the plate surfaces from contact with grease (e.g. fingerprints) before applying the resists. When the plate is dry Lascaux Plate-backing resist should be applied to the edges and back of the plate to protect the metal from the action of the mordant.

Applying the resist:

The objective is to produce an even, thin coating on the plate. Work on a clean workboard in an area with good light. The plate should be prepared, backed, dry and cold. Position the plate on a sponge (or sponges) so that it is raised up from the surface of the workboard. Shake the container well to distribute the waxy content. Squeeze a small amount of resist into a clean china or glass palette. The type of brush used is important as a coarse brush will lay down a ridged layer or a layer with gaps. A synthetic brush such as a 2" (5 cm) Prolene brush made by ProArte is ideal and should be kept for applying resists. Before painting on the plate paint a brush stroke onto a clean sheet of paper to check that the brush is clean. This resist is designed to be quick drying so the painting process should only take a few minutes. Apply the resist thinly to the plate in methodical strokes, allowing these to extend off the plate surface to avoid unwanted pools of resist forming at the edges of the plate. Small plates can be rotated through 90° and, without reloading the brush with resist, the entire plate surface brushed again. Wipe any excess resist from the brush on the side of the palette. To become confident at applying and using the resist, experiment on small test plates with different application brushes and drawing tools.

Drying the resist:

The plate can be laid flat to dry naturally or dried with a warm air fan in a horizontal drying cabinet. The resist becomes touch dry quickly and when it is fully dry it is ready to colour, draw into or etch.

Colouring the resist:

The surface of the dry resist may be coloured by applying water-soluble Lascaux Dark coating or Lascaux White coating (see data sheet for full information). The coloured surfaces can be drawn on with a pencil or tracing paper can be used if a guide drawing is required.

Drawing techniques:

Drawings can be creating in the clear or coloured layer using etching tools such as needles, roulettes, scrapers and steel wool. The resist has a soft, waxy feel, allowing the needle to glide, and resulting in a smooth clean line. The particles of resist which are dislodged by the drawing action will not smudge and can easily be brushed away. The exposed metal will be clearly visible as a bright line if the resist has been coloured.

Removing the colouring and editing the image:

The colouring should be washed away with water when the drawing is complete: the Lascaux Hard resist and its drawing will remain on the plate. Any corrections can then be made with Lascaux Stop-out resist which will bond securely to the Hard resist.

Painting techniques:

Broader open (exposed metal) marks can be created by painting Mystrol onto the dry layer of clear resist. After 10 minutes, a soft tissue is used to lift away the Remover without spreading it. A paint brush can then be used to carefully break up and then remove the weakened resist from the plate. The metal will now be exposed in the areas where the mark was painted. The plate should be rinsed with CPS degreaser and then water before applying an aquatint or other resists.

Etching:

The plate can be etched in a variety of mordants such as solutions of ferric chloride (for copper and brass) or copper sulphate mixtures (for steel, zinc and aluminium). Correct facilities and safety precautions should be used when etching. Plates should initially be flash bitten (etched for a few minutes) to reveal the areas of metal which are etching. Areas which should be etching but still look shiny and bright may need to be re-drawn or may be contaminated with a greasy fingerprint and will need to be degreased with household dishwashing liquid. If flash biting does not reveal any problems normal biting can commence. However if any other resists are to be applied or more lines are to be drawn in the resist, the plate should first be rinsed, de-oxidized with a solution of salt and household vinegar, rinsed and dried. When the drawing is repaired, flash biting is again used to check that all is well before normal etching commences. Deep bites can be made confidently as even the thinnest layer of resist is highly acid-resistant, making it extremely reliable. Foul biting is unlikely to occur. After etching, plates should be rinsed and de-oxidised before removing the resist prior to proofing.

Resist removal:

The resist is water-soluble and can be cleaned from brushes, tools, palettes, plates and surfaces with warm soapy water before it dries. Dried resist can be removed by immersing the plate in a tray or tank of Remover for ten minutes. The plate is removed from the tray and the weakened resist is immediately rubbed from the plate surface (the solution should not be allowed to dry) with a brush or non-scratch knitted type plastic cleaning pad pad (gloves should be worn). The plate is then rinsed in warm water and examined for any remaining resist. The process may be repeated until the plate is clean. If other resists are to be applied the plate should be degreased. Dried resist on palettes can be removed by peeling or soaking in hot water. Brushes with deposits of dry resist can be soaked in Remover, washed in soap and then thoroughly rinsed.

Working the plate further:

The surface may be lightly wet-sanded or polished to enhance the contrast and clarity before proofing. The plate may also be worked further using subtractive or additive methods.

More information

This product has been developed in collaboration with the printmakers Robert Adam and Carol Robertson who have been researching and teaching safer printmaking methods since 1990. Their book 'Screenprinting - the complete water-based system' is published by Thames & Hudson; and the forthcoming companion volume on intaglio printmaking describes the use of this product. Contact www.graalpress.com or graal@ednet.co.uk for information about acrylic-resist etching courses.

Sizes

bottles of 85 ml and 500 ml, also available in the set ARE, which contains 9 x 85 ml bottles: Plate-backing resist, Stop-out resist, Soft resist, Wash resist, Aquatint spray resist, Hard resist, Black coating for Hard resist, White coating for Hard resist and Remover.

Disclaimer:

The information provided above is given to the best of our knowledge and is based on our current research and experience. It does not absolve the artist from the responsibility of first testing the suitability of our products for the substrate and specific use conditions he or she has in mind. This technical sheet will become invalid with any revised edition. The latest update is always found on our website.