Aquacote is BoatCraft Pacific's range of water based high build epoxy undercoat and polyurethane topcoats. These highly durable coatings represent the newest technology available, offering leading edge protective coatings which set new standards in ease of use, environmental safety, and especially for protection of the health of applicators.

EASE OF USE

Aquacote coatings require thinning and clean up with water only, and they can be applied safely to damp surfaces. They combine with Bote-Cote epoxy systems to present a complete fairing and protective coating system suitable for surfaces of timber and plywood, fibreglass, metals, and any other porous or semi-porous surfaces requiring long term protection from marine and exterior environments.

Repetitive filling and sanding of rougher surfaces to make them fair and smooth is eliminated with Aquacote High Build Undercoat, an easy sanding, high build epoxy coating. Aquacote Undercoat can be applied to sufficient thickness to enable the surface to be faired and smoothed to a fine professional finish in a simple preparation step.

Aquacote Polyurethane Topcoat is a strong, hard, but flexible polyurethane coating which adheres strongly to most surfaces, and provides similar tough, long lasting protection as solvent type polyurethanes. It is available in a range of colours and in a crystal clear coating containing state of the art UV absorbers for maximum protection of the underlieing surface. Aquacote is water and solvent resistant.

Aquacote coatings should never be applied outdoors if rain or dew will settle within at least 24 hours,

USER HEALTH AND SAFETY

Aquacote water based coatings contain only minimal amounts of co-solvents to enable them to wet the surface and to aid in film formation. Elimination of the solvents in conventional paints results in greater safety for users who are no longer exposed to large amounts of solvent vapours. No solvents also means totally non-flammable.

In contrast to their solvent based counterparts, Aquacote polyurethane topcoats contain no di-isocyanates. The presence of di-isocyanates has resulted in the use of conventional polyurethanes being banned in many locations because of their toxic effects. Aquacote now offers all users the benefits of a polyurethane coating without detrimental health problems.

Aquacote coatings can be used indoors and in enclosed areas where the build up of solvents and fumes would otherwise be highly dangerous. Ventilation is still recommended in enclosed areas.

ENVIRONMENTALLY SAFE

Aquacote water based coatings are non-flammable, have very low toxicity, and are very low in Volatile Organic Compounds (VOC's). In fact Aquacote meets the strictest VOC requirements in the world, fully complying with Californian legislation. Aquacote water based coatings can be shipped anywhere, including by air, without restriction.

SURFACE PREPARATION

Surfaces must be clean and free of all traces of oil or grease. It is a possible limitation of water based coatings that they have no solvent washing action during application, therefore surface preparation must be more stringent. Follow these steps:

Some sandpapers have a wax layer which will transfer to the surface and interfere with adhesion. These are the "OpenKote" papers, generally they are a white or a grey colour and are promoted as non clogging**. Do not use these sand papers.** Black, Red, Yellow or Green sandpapers are OK.

1. If there is any possibility of grease or wax on the surface, such as on fibreglass, scrub the surface with copious amounts of strong degreasing detergent & rinse thoroughly. Do not simply wipe the surface with a solvent wetted cloth, that will only spread contamination more generally.
2. Sand the surface to a uniform finish with 120 grit abrasive .

3. Immediately before applying the coating, remove dust from the surface by wiping with a clean lint free towel dampened *with water only.* **Do not wipe with solvent**. Wiping with solvent is more likely to spread contamination from hands and cloth onto the job, rather than the other way around. Keep your hands and fingers **off** the surface, use your eyes to see how clean it is, not dirty fingers.

UNDERCOAT APPLICATION

Aquacote High Build Undercoat is primarily to be used as a high build easy sanding primer.

Mix together parts A and B of Aquacote Undercoat. Measure out equal volumes of each into a container and mix thoroughly, scraping unmixed material off the sides during mixing. Mix no more than can be used within 30 - 45 minutes. Re-mix frequently during application. Aquacote Undercoat may be thinned with up to 15% water. This prolongs the pot life but does not alter surface cure time.

Undercoat must be built up in several coats to a rather thick coating, *at a coverage of about 3-5 sq m per litre*, using brush, roller, or spray. We recommend spraying unthinned using a gravity feed gun with a 2 mm tip at 45-50 psi (340 kPa), or a pressure pot. Further coats can be applied for additional build after 1 - 2 hours or when the first coat has become tacky.

Apply several thinner coats rather than one thick one. This prevents runs and sags, and more importantly, allows the water to dry away faster. A thick coating will trap water and remain undercured. A very thin coating is appropriate for filling grain and porosity before applying clear coatings. Equipment should be flushed with water and then allowed to soak in acetone to dissolve any residues.

Allow a full 24 hours at temperatures above 20 deg C for the Aquacote Undercoat to cure fully to a hard sanding finish. Low temperatures, moisture or high humidity will retard the cure rate. Always sand the surface between applications if the coating has become fully cured.

TOPCOAT APPLICATION

When the undercoat is cured hard it can be sanded to a fine finish ready to receive the topcoat. Wet sanding is more efficient than dry sanding with Aquacote undercoat.

Sand the undercoat to an even surface with coarse abrasive e.g using 80 grit in an orbital sander. Then work down through increasingly finer abrasive grades to remove scratches and obtain a very fine smooth surface. For many applications, 180 grit paper will be fine enough, but for the most fastidious finishes 240 or even finer paper should be used. Examine the surface against the light for uniformity, and to see if any residual scratches can be seen. There is no substitute for careful preparation to achieve a perfect finish. Remove dust from the surface again by wiping with a clean cloth dampened with water only.

Mix Cross Linker into Aquacote polyurethane topcoat paints at a rate of 1.5%, or 15 ml per litre. The pot life of the catalysed liquid is 4 - 6 hours. After that time the cross linker will have become de-activated, and the mix will require a further addition of cross linker. This means that any unused mixture may be returned to the original can for future reuse. Aquacote polyurethane will not cure to a strong well adhered coating if it is not cross-linked. Strain the coating through a fine mesh to remove any solid particles which may have formed from dried coating accidentally returned to the can.

Aquacote polyurethane may be applied by foam brush or spray. If spraying use a high pressure gun suitable for enamels at 50 psi (340 kPa) with a 1.4 mm tip for most uniform application. A foam brush is far preferable to a bristle brush for giving a very smooth coating. Always apply a first mist coat, then apply a full coat at a wet film thickness of 200 microns, to give a dry film of about 40 microns per coat, *at a coverage rate of 10 sq m per litre*.

Aquacote dries quickly, so to avoid an orange peel finish it is important to avoid any overspray settling on work already completed. Develop a technique of spraying forward, towards the uncoated surface, rather than directly at the work area. Mask off finished areas, e.g. place a barrier along the keel line to protect one side of the boat from overspray from the other side.

Aquacote polyurethane should flow out and level as it dries and generally needs thinning with up to 10% water. Water thinned coats flow out better than unthinned coats in warm or dry

atmospheres, but beware of runs. You may need to experiment with the consistency of the paint for the best application under your particular ambient conditions

NOTE ! NEVER ADD ANY SOLVENTS TO AQUACOTE PAINTS - they may coagulate.

Do not apply Aquacote polyurethane under hot dry conditions, or under cold or wet conditions. The former will make it dry too quickly and it may not have time to level properly. The latter conditions may entirely prevent it drying in any reasonable period. In warm conditions thin with up to 15% water to slow the drying. Preferably apply Aquacote during a cool time of the day, such as early morning, when a little dampness will aid application, but drying will proceed easily as the temperature rises later.

At least two coats will be required to ensure even application. A third coat enhances the gloss level, particularly with clear coatings. Subsequent coats may be applied up to 4 hours after the previous one has dried. If longer time has elapsed, or if a very smooth finish is desired, sand the surface between coats with very fine paper, 240 grit or finer.

Aquacote coatings harden gradually over several days. Allow at least 4 days prior to placing the finished job into full service. Be warned! This coating is very hard to sand after it is fully cured.

CLEAN UP

Brushes and equipment may be washed out in water. Always leave them to soak overnight in clean water to remove coating residues. Partly dried and cured residues may dissolve in acetone or similar solvent but will become increasingly difficult to remove as cure progresses.

CLEAR COATINGS

For best long term exposure performance, apply 3 or 4 coats of clear Aquacote over three coats of Bote-Cote NY epoxy, as this provides for optimum UV resistance. It is recommended that, at intervals of two to two and a half years, an additional coat or two of Aquacote clear be applied to restore the overall UV protection level. Wash and lightly sand the surface before application.

USE WITH OTHER PAINTS

We do not recommend use of Aquacote over single pack alkyd type paints. It is possible that Aquacote coatings can be applied over other two pack paints, or other paints applied over Aquacote. Unfortunately we cannot test all paints available, and other paint manufacturers may produce new formulations without reference to us. Therefore we are unable to provide any specific recommendations regarding compatability with other paints. Users are invited to obtain sample quantities to evaluate their own particular circumstances.

SAFETY AND HANDLING

While these products are considerably safer too use than solvent based paints, suitable handling precautions must always be observed. Always work in a well ventilated area. Do not smoke, eat or drink, while using these products. Avoid skin and eye contact.

Epoxy chemicals and the polyurethane cross linker may have a sensitising effect on some individuals. Therefore always wear skin and eye protection when mixing and applying coatings. Wear disposable rubber gloves, a long sleeved shirt, and safety glasses. Remove any spilt material with soap and water.

For all spraying operations a quality respirator is necessary to protect the user from the aerosol overspray, as well as the small quantitiies of cosolvent in the paint.

Only sand the coatings after they are well cured. Wear a dust mask, and wear protective clothing to protect the skin from dust.

If a rash or irritation occurs, discontinue use of these products and apply a skin cream to the affected areas.

WARRANTY

BoatCraft Pacific Pty. Ltd. warrant that all products complied with the company's manufacturing standards at the time of shipment. All statements, technical information and recommendations are based on tests we believe to be reliable; they are given in good faith, but without assuming any obligation or liability. As we have no control over the conditions under which our products are being used or their method of application, no warranty, expressed or implied, is made as to the effect of such use or the results obtained, and neither seller nor manufacturer shall be liable for any injury direct or consequential arising out of the use of or inability to use our products.

BoatCraft Pacific

AQUACOTE COATINGS

2009-01-28

APPLICATION DIRECTIONS

AUSTRALIA'S FIRST WATER BASED POLYURETHANE AND EPOXY COATINGS SUITABLE FOR MARINE ENVIRONMENTS

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46 Chetwynd St
Loganholme
Queensland 4129

Tel 07 3806 1944

www.boatcraft.com.au

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