



LIMITED



URETHANE & EPOXY SYSTEMS, DEVELOPMENT & MANUFACTURE

## DETAILED APPLICATION AND PRODUCT USE INSTRUCTIONS.

### UROXSYS MARINE ALIPHATIC CLEAR GLOSS AND MATT TOPCOATS.

#### GENERAL

The Uroxsy Marine range is an extremely durable marine coating system suitable for both exterior and interior applications.

The performance of the system is dependant on adherence to the correct application method detailed in the following guide.

We recommend taking some time to study these instructions before commencing to ensure optimal results.

#### PRODUCT USAGE CALCULATOR

##### **THE PERFORMANCE OF THIS SYSTEM IS DEPENDENT ON A SPECIFIC MINIMUM FILM BUILD BEING ACHIEVED**

Estimate the job area in square metres and use the figures below to calculate the minimum amount of product required.

More Uroxsy Marine Aliphatic can be used to attain a thicker film if desired.

##### **IF BRUSHING OR ROLLING**

Exterior: Allow at least 0.5 litres of Marine Aliphatic per square metre.

Interior: Allow at least 0.33L per square metre.

##### **IF SPRAYING**

Assuming 50% of the product will be lost as overspray

Exterior: Allow at least 1.0L of Marine Aliphatic per square metre

Interior: Allow at least 0.66L per square metre.

##### **ALIPHATIC MATT**

##### **BRUSHING, ROLLING OR SPRAYING, INTERIOR OR EXTERIOR:**

Applied as a final finish coat only over build coats of Aliphatic Gloss.

Allow 100mls per square metre.

#### SURFACE PREPARATION

##### **IF APPLYING DIRECTLY ONTO TIMBER FOR INTERIOR USE ONLY**

Any cracks in the timber should be epoxy filled or splined with timber. Radius all edges to ensure that no sharp corners remain. Substrates should be **thoroughly sanded to clean, even coloured timber** working through the sandpaper grades to P150 grit (sanding with the grain using the 150 grit) to provide a keyed surface. Remove all contaminants and previous coating systems. **If bare timber has been saturated with salt water at any stage, wash well with fresh water to remove any salt deposits from the timber grain before commencing sanding.**

##### **CLEANING/DEGREASING RESINOUS TIMBER: NOT REQUIRED IF PRIMER HAS ALREADY BEEN APPLIED**

Airgun, Vacuum, or brush down well to remove sanding dust from the grain of the timber. On resinous timbers such as Teak and Iroko, wash with a degreasing solvent such as Acetone or Methylated Spirits applied with a brush and removed with paper towels or rags. Some solvent blends contain alcohol which will impair the cure of the product, so ensure the surface is **completely** dry before applying the product; e.g. leave for an hour with good ventilation.

**If the timber has been rained or become wet after the final sand, expect water spots to appear. Re-sand with P150 grade paper before resuming. We recommend using the clear primer for interior use to attain a premium finish. The coloured primers can be used in areas of high light exposure if desired.**

## APPLYING OVER COLOURED UROXSYS MARINE PRIMER

If a coloured primer has been used, sanding is not required unless more than 24 hours has elapsed since the time of primer application, or de-nibbing is required. Sand lightly with no coarser than P320 grit paper **by hand**, with the grain of the timber. Sanding should be extremely easy – a few passes with the paper should be all that is required. Over-sanding will cause colour inconsistencies if the primer is sanded through. Lightly sanding will assist in attaining the highest quality finish.

## APPLYING OVER CLEAR UROXSYS MARINE PRIMER

Lightly hand or machine sand with around P240 grit paper. Do not sand through the primer; if this occurs spot prime that area and sand carefully when the primer has cured.

**NOTE: If in cold temperatures and/or very dry conditions, the Marine Primer feels sticky to the touch or cannot be sanded without clogging the paper after an overnight cure, allow more time before proceeding.**

## APPLYING OVER EPOXY PRIMER OR FIBREGLASS/CARBON FIBRE

Machine or hand sand to remove defects - finishing with around p180 grit. Ensure that no epoxy blush is present.

## APPLICATION CONDITIONS

As moisture in the atmosphere causes this product to cure, it needs to be handled differently than a standard varnish! As a rule, high humidity and high temperature accelerate the cure of the product whereas low humidity and low temperature retard the cure. Suitable application conditions 4°C - 35°C, Relative humidity 40% - 90%.

**LOW TEMPERATURES:** Not suitable for use in temperatures less than 4°C.

**LOW HUMIDITY:** Not suitable for use in very low humidity atmospheres.

**NOTE:** As this product cures by the mechanism of moisture in the air (humidity), very low moisture content in the air will lead to lengthy cure times. **Do not use this product in an air-conditioned environment.** If the product is to be applied in an environment where it is suspected that low humidity may inhibit the cure of the product, do a test patch first. The humidity in an environment may be sufficiently increased by hanging wet towels in the vicinity or wetting adjacent surfaces such as floors. Do not directly wet the uncured Marine Aliphatic.

**HIGH HUMIDITY:** Very resistant to high humidity atmospheres.

**NOTE:** This product is extremely resistant to surface blushing caused by high humidity and damp conditions making it suitable for evening application. **HOWEVER** it should not be used if condensation or rain might contact the product before it cures. If this occurs, the resultant white patches will need to be sanded off before recommencing.

**HIGH TEMPERATURES:** Do a test patch first if ambient conditions are greater than 35°C.

**NOTE:** The product can be applied in full sun, however the timber until the timber is fully sealed, bubbles caused by expanding gasses in the timber can be expected (these can be sanded out without a problem).

**On very hot sunny days**, timber exposed to full sun can be expected to heat to upwards of 60°C. This may cause small bubbles to form in the surface of the film due to extremely rapid curing (these can be sanded out). If this occurs, try to apply subsequent coats earlier or later in the day when the heat from the sun is less intense.

**AIRBORNE AND SURFACE CONTAMINATION:** Ensure that the environment in which the product is applied is free from all contaminants such as; cleaning products and sprays, polishing compounds, oil products and particularly silicones. If the product 'pulls back', 'rejects', develops 'fish eyes' or an orange peel texture, check for airborne or surface contamination, sand well and resume. Residual contaminants in a cured coating can cause ongoing application defects.

## APPLICATION INSTRUCTIONS

### THINNING

Does not require thinning unless spraying (see below). The Uroxsys Marine Aliphatic has been designed to brush excellently out of the can. If for any reason thinning is required, use **Xylene** only. Any alcohols such as methylated spirits will stop the product from curing entirely. **UNDER NO CIRCUMSTANCES THIN WITH UROXSYS MARINE CLEANER.**

## DECANTING

Decant sufficient product for 20 minutes use into a roller tray or working pot. Seal the original container immediately to **prevent moisture exposure**. **Screw the cap on fully**. A deep working pot is preferable to one that is broad and shallow to minimise moisture exposure and maximise pot life.

**Do not tip unused product back into the can.** Wipe the thread or the can if necessary to prevent the cap becoming glued to the can. If the cap does stick, remove with slip-grip pliers. The can should be able to be opened 4 or 5 times without the contents thickening noticeably; if it does thicken or become lumpy, then moisture contamination has occurred and it will become difficult to brush.

## APPLICATION

**Apply by brush, mohair roller or spray.** Sand lightly between coats to remove defects with around P220 grade paper (unless spraying; see below). Use P180 grade for heavier sand. During build coats, machine sanding can be used. **DO NOT REMOVE TOO MUCH PRODUCT THROUGH SANDING AS MAXIMUM FILM BUILD IS CRUCIAL FOR GOOD PERFORMANCE.** Prior to the final coat, **lightly hand sanding with the grain using a fine paper grade is advised for optimal aesthetics.**

**If more than 24 hours** is left between coats, lightly sand to ensure good mechanical bonding with subsequent coats.

## SPRAYING

If spraying, thin the product up to 25% with Xylene – do not use universal thinners.

**NOTE:** this product contains slow evaporating solvents in order to make brush and roller application practicable. If spraying, do not attempt to build the product quickly as these slow solvents will remain trapped in the coating inhibiting performance. Allow each coat to become touch dry before applying another. Ventilation will assist solvent release. Lightly sand each day before commencing.

Ensure that the quantity required per m<sup>2</sup> (see above) is attained. The coating should appear thick and lustrous.

## APPLYING MULTIPLE COATS PER DAY

Multiple coats can be applied daily given the right conditions. **Warm temperatures, breezes and higher humidity all accelerate the cure of the product.** As a general indicator, when one coat is touch dry, another can be applied. This can be in as little as an hour in ideal conditions or as much as 8 hours in cold and/or dry conditions. If the brush or roller binds with, or re-dissolves the previous coat, more drying time is required. A good test prior to over-coating is to ascertain whether the film can gently sanded with P220 grit sandpaper without binding.

**NOTE:** If applying multiple coats per day, sanding between coats may not be achievable; normal conditions allow good sanding properties after overnight cure. However, if the product is applied in full sun, or very hot conditions, it can develop the equivalent of 24 hours 'normal' cure in only 4 hours at which point inter-coat chemical bonding is compromised. In this instance, a light sand to promote mechanical bonding is recommended. Not sanding between coats one day will require that a heavier sand be done the next to get a flat surface. Do not sand excessively however as the objective is to obtain maximum film build.

**Experienced applicators will find that wet on wet applications are possible – this can lead to greater sensitivity to surface bubbling in full sun or high temperatures which applicators should be aware of (see high temperature notes above).**

## NUMBER OF COATS FOR CORRECT FILM BUILD

### INDOORS

Apply a minimum of 0.33L per square metre. This should be achievable in 4 coats. If unused product remains after 4 coats have been applied then continue until the product is finished.

### OUTDOORS

Apply a minimum of 0.5L per square meter. This should be achievable in 6 coats. If unused product remains after 6 coats have been applied then continue until the product is finished.

**NOTE:** We have amended the instructions to specify correct minimum application quantity per square meter rather than number of coats after finding some users applying the product far too thinly. The Aliphatic Gloss should be handled similarly to enamel paint as an indicator. The appearance of the coating on the finished job should be tangibly thick with an unbroken surface. The use of matt as a finish coat will diminish the apparent thickness of the film.

### SPRAYING

Work on volumes rather than number of coats. Allow 0.66L per square meter for interior use and 1L per square meter for exterior assuming a spray efficiency of 50%. Some applicators choose to spray the final coat only.

## MATT FINISH: MARINE ALIPHATIC CLEAR MATT

Apply as a final coat only over gloss build coats. Allow 100mls per square meter regardless of application method but do not try to achieve high build with the Matt, it is an aesthetic coat only. **Allow at least an overnight cure** between the application of the final coat of Aliphatic Gloss and the Aliphatic Matt. This can be applied by brush, roller or spray. **SHAKE CAN WELL BEFORE USE.**

## ADDITIONAL COATS

This is the minimum film build recommended to enable excellent long term durability. The applicator can apply more coats to achieve thicker film thickness if desired.

## APPLICATION SCHEDULE FOR COMPLETE SYSTEM

In **optimal** conditions (warm temperature, high humidity), this sequence for exterior application is possible. This time will increase as temperature and/or humidity fall.

**Day one:** Apply primer.

**Day two:** Sand primer (if desired), apply 3 coats of Uroxsys Marine Aliphatic Gloss.

**Day three:** Sand, apply 2 coats of Uroxsys Marine Aliphatic Gloss.

**Day four:** Sand, apply one coat of Uroxsys Marine Aliphatic Gloss.

**Day five (if a matt finish is desired):** Sand, apply one coat of Uroxsys Marine Aliphatic Matt.

We recommend that a maximum of 2 coats per day be applied in interior applications.

## RECOAT AND REPAIR OF COMPLETE SYSTEM

If the system eventually requires a recoat and the coating is unbroken, lightly sand with P180 grit paper to key the surface, and apply two coats of Aliphatic Gloss or one coat of Aliphatic Gloss followed by one of Aliphatic Matt if a matt finish is desired. If the original film has been broken, feather the edges and build that area up to 6 coats of thickness locally before recoating the entire surface. Use the coloured primer used initially to colour-match the original tone.

## OVER EPOXY, FIBREGLASS OR CARBON FIBRE

Apply a minimum of 0.33L per square metre (double this if spraying). This should be achievable in 4 coats. If unused product remains after 4 coats have been applied then continue until the product is finished.

## USEFUL TIPS

**IF BRUSH IS HARDENING DURING APPLICATION:** This can occur in warm conditions. The brush can be regularly rinsed by working Acetone MEK or Xylene into it before giving it a quick shake or wring out before recommencing.

**IF SMALL CLEAR GELS OF CURED PRODUCT APPEAR IN THE FILM:** Again can occur in warm conditions particularly if the same working pot or roller tray is repeatedly filled. The product can partially cure on the walls of the working pot or roller tray then get picked up on the brush or roller and incorporated into the film. If this occurs, it is best to use a new working pot or paint tray each time the new product is decanted from the can. Cured product can easily be peeled off clean working pots or paint trays the following day. A quick solvent wash can remove this partially cured product from roller trays and working pots before decanting more Marine Aliphatic into them.

**IF THE MARINE ALIPHATIC THICKENS IN THE WORKING POT OR ROLLER TRAY DURING APPLICATION:** Decant fresh product more often so that there is reduced exposure time during application.

**IF USING MASKING TAPE:** Gently cut partially through the Marine Aliphatic film prior to removing the tape. The product forms a tough film rapidly that can tear unevenly if not cut prior to masking tape removal.

## CLEANING

For brush or equipment cleaning use Uroxsys Marine Cleaner. Work it well into brushes, give a second rinse and allow to completely dry prior to using.. The Marine Cleaner will **completely** stop the Marine Aliphatic from curing. **NEVER THIN THE PRODUCT WITH BRUSH CLEANER** or allow the brush cleaner to combine in any way with the product.

**Acetone, Xylene or MEK** can also be used for cleaning and will not harm the Marine Aliphatic on contact though it should be remembered that even very small amounts of Uroxsys Marine Aliphatic left on brushes will cause them to harden. These solvents will not neutralise the product. It can be convenient to store brushes in Uroxsys Marine Cleaner or Acetone, Xylene or MEK between build coats – ensure that the Marine Cleaner or solvent is worked well into the brush.

Alternatively wash brushes well in the Uroxsys Marine Cleaner, rinse well a second time in Acetone/Xylene/MEK to flush out the Marine Cleaner and shake out the brush. You can then start work straight away without the brush needing to be dried.

Brushes and rollers can be wrapped tightly in plastic and stored (without requiring cleaning) in a freezer overnight without hardening.

***Do not rinse brushes in water prior to use. We do not recommend attempting to clean rollers.***

## HEALTH AND SAFETY

We strongly recommend using dust masks when sanding and carbon filter masks (or forced air) when applying the product particularly if spraying or using the product in a confined space.