

Product Data

Preparation and Application

SWIFTEPOXY HB

for Swimming Pools

SWIFTEPOXY HB IS A 2-COMPONENT EPOXY COATING SPECIFICALLY DESIGNED FOR IMMERSION CONDITIONS IN WATER AND AQUEOUS CHEMICALS. SWIFTEPOXY HB, AND ALL MACLEOD INDUSTRIES PRODUCTS, ARE MANUFACTURED TO THE HIGHEST STANDARDS. SWIFTEPOXY HB IS AND HAS ALWAYS BEEN MANUFACTURED IN AUSTRALIA. MACLEOD INDUSTRIES IS A WHOLLY AUSTRALIAN-OWNED COMPANY.

Primary Uses:

SwiftEpoxy HB can be used in swimming pools, industrial floors, wet areas, or anywhere a combination of water-resistance and chemical-resistance properties are needed.

Advantages of SwiftEpoxy HB

- Wide range application conditions
- Excellent water-resistance at recommended film build
- Very high binder content compared to many available epoxy coatings.
- Low (approximately 8% by volume) solvent content
- Excellent adhesion
- Some slip-resisting characteristics
- Engineered for easy recoatability.
- Excellent chemical and solvent resistance
- Some thermal insulating properties
- Low chalking formulation
- Can be applied at a range of film builds.
- Short cure time before exposure to water is possible.
- Dried film is effectively inert and does not release chemicals which will alter chemical balance of water

Note: This publication is offered as a guide and an assistance toward use of our product. The information is based on years of experience and is offered in good faith. This guide and guides of this type are not intended to replace or substitute for knowledge of coatings, substrates, or preparation or application techniques. The techniques and specifications are of a general nature, and cannot possibly detail all possibilities for all applications. If there is any doubt that this publication is suitable for your application, please contact Macleod Industries directly.

Safe Use of This Product

Safe use of this product requires good work practices. MSD Sheets are available on request. Please familiarise yourself with these sheets before starting work. The solvent levels in SwiftEpoxy HB are low, but vapours will still be present as the paint is applied and the paint film cures. Be aware of this and plan your work accordingly. The hardener is a corrosive and care should be taken when handling. Contact with skin or eyes is to be avoided.

PRODUCT DATA

Technical data is typical and representative of the product.

Form, Part A (resin): Thixotropic liquid
Part B (hardener): Clear yellow liquid
Density, Part A (resin): Approx 1 kg/l
Part B (hardener): Approx 1 kg/l

Non-Volatile Volume: 95% ±3% mixed product

Coverage: Maximum 8 m²/ltr, to produce approximately 110 microns/ coat DFT

Colours: Check for current colour range.

Packaging: 4 litre kits (3 litres part A, 1 litre part B)

Mixed Pot Life: Approximately 90 minutes at 20° C

Shelf Life: At least 1 year

Chemical Resistance:

SWIFTEPOXY HB IS RESISTANT TO TEMPORARY EXPOSURE TO, OR SPILLS OF:

- Concentrated hydrochloric, sulphuric and acetic acids
- 10% concentrations of nitric acid
- Concentrated sodium hydroxide (caustic soda) solution and many other alkaline compounds
- 25% Ammonia (Technical Grade)
- Pure methylated spirits, aromatic and aliphatic hydrocarbon solvents, and many oxygenated solvents.

SWIFTEPOXY HB IS RESISTANT TO FULL IMMERSION IN, OR LONG TERM EXPOSURE TO:

- Pure water
- Dilute hydrochloric, hydrofluoric, sulphuric, phosphoric, tannic, cyanuric, and uric acid.
- 10% concentrations of sodium hydroxide (caustic soda)
- Seawater and solutions of many alkaline salts
- Some weak solvents.
- All chemicals commonly used in swimming pools, at concentrations recommended by manufacturers and pool maintenance professionals.
- Most mineral, vegetable, and animal fats/oils
- NOTE: For best results in a swimming pool environment, consultation with a pool maintenance professional and reference to the Langelier Index is recommended.

SURFACE PREPARATION

Important Note: The purpose of surface preparation, for this coating or any other, is to produce a surface that is clean and sound. Anything other than a clean and structurally sound surface will detract from the life span of any coating applied to it. This reduction in life span will be even more pronounced in immersion conditions.

All substrates must be sound, free from grease, oil and fats, and free of soluble salts. If you are aware of serious contamination of your substrate, contact a professional to prepare the surface for you, or contact Macleod Industries directly for more information.

Basic Techniques used in Preparing Surfaces

Degrease and Rinse

Degrease surfaces using a solution of EC101 (preferred) or other degreaser at concentration specified on package. Manually scrub using a stiff bristled broom or scrubbing brush and rinse thoroughly when finished to remove all grease, fats, and oils. Ensure all residues are thoroughly removed; rinse with clean potable water with low dissolved mineral content. If substrate is a swimming pool or spa, pay particular attention to the waterline and above, and to the shallow areas and the steps.

Waterblast

Water-blast at 3000 p.s.i. or higher. Tip should be no further than 80 cm from the surface to ensure good pressure. This removes solubles and unsound paint or substrate. If removal of unsound paint is required, it is recommended that the surface be water-blasted a second time, at least one hour after the first blasting. The water used should be low in dissolved minerals.

Acid Etch and Rinse

Read all safety instructions on the container of acid before beginning. Protective mask and clothing should be worn. Rinse with a solution of spirits of salts (33% - 35% hydrochloric acid) to react and solubilize alkaline salts and remove them, and to etch smooth surfaces. Spirits of salts should be diluted 1:3 (acid: water). A plastic watering-can equipped with a rose is recommended for mixing and application of acid. **Always add acid to water.** Ensure that every part of the surface is exposed to fresh, unreacted acid. Rinse immediately with water free of soluble minerals; acid residues must not be allowed to dry on the surface.

Abrasion

Abrasion is necessary to reduce the gloss of a previous epoxy or urethane coating, or where loose rust on a metal surface is present. Sandblasting, wet sandblasting, disc grinding with angle grinder, or manual abrasion with grit paper are all acceptable. Metal surfaces should be abraded to SA 2.5. Remove grit and paint and substrate particles from area when finished.

PREPARING MINERAL SUBSTRATES FOR PAINTING

Mineral substrates include:

- Concrete and concrete form-work
- Cement render
- Cement sheeting and cement and terracotta tiles (unglazed).
- Marblesheen™, Quartzon™, and other coloured renders, **not** including pebbled render surfaces
- Note: Render or render patches which have been modified with resins may be difficult to overcoat. If your render has been modified with resin, please contact Macleod Industries or the render manufacturer before proceeding.

Preparing New Mineral Substrate

- Make sure that the substrate has cured fully
- Acid Etch and Rinse. Ensure that the substrate is now rough. Steel-troweled finishes can be quite smooth, and may require a second acid etch and rinse

Preparing Aged Unpainted Mineral Substrate

- Degrease and Rinse
- Acid Etch and Rinse
- Water-blast

Preparing a Mineral Substrate Previously Painted with a 2-Part Epoxy, or 2-Part or Moisture-Cure Urethane

- Degrease and Rinse
- Acid Etch and Rinse
- Allow to dry. Examine gloss level of paint and abrade to remove surface smoothness and gloss. If previous coat is SwiftEpoxy HB, no abrasion should be necessary
- Water-blast, wait an hour. If paint is curling at edges, water-blast again. Repeat, if necessary. If this continues, you may need to sandblast to remove all paint.

Preparing a Mineral Substrate Previously Painted with SwiftVulc or other Chlorinated Rubber

- Not recommended. SwiftVulc is a more appropriate product for this application.

Preparing Mineral Substrates with another type of Coating

- Contact Macleod Industries directly for advice specific to your application.

After Surface Preparation of Mineral Substrates

SwiftEpoxy HB is not a patching compound, although it does have some crack-filling characteristics. If blowholes or cracks are present, they should be patched after cleaning and before painting. Straight render should be allowed to cure fully, and be acid etched before painting. 2-component epoxy patching compounds should be abraded to remove all gloss after curing. Please ensure the patching compound you are using is recommended by the manufacturer for your application. SwiftEpoxy HB is not a membrane, and will not solve serious engineering problems.

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- Degrease if any grease or oils are present. Dry surface as quickly as possible after rinsing.
- Abrade to remove loose rust or mill scale if present. Mill scale cannot be removed by hand sanding.
- Treat surface with a wash on/wash off rust converter.

Preparing Aluminium for Painting

- Degrease and rinse if any grease or oils are present. Dry surface as quickly as possible after rinsing
- Lightly abrade to remove white rust, if present, and to roughen the surface to promote adhesion

Preparing Fibreglass

- The variables with fibreglass are too numerous to detail in this publication. Contact Macleod Industries directly for additional information

Preparing Other Substrates

For technical advice on your specific application, contact Macleod Industries directly.

After Preparation

Substrates must dry after surface preparation before painting begins. Coating substrate with standing water or extreme wetness will lead to adhesion loss. Rising damp is an engineering issue, and will not be solved by a coating.

APPLICATION TECHNIQUE

- **Roller:** Use a 10 mm nap, quality synthetic (Rolana or equivalent) or lambs wool roller.
- **Brush:** Use any solvent-resistant (epoxy set) brush.
- **Cleanup:** Thin and clean-up only with SVX Thinner, as directed for your application. Thin only as instructed. Any spills of part A or B should be wiped up with SVX and disposed of safely.
- **Mixing/Stirring:** Part A should be well-stirred before Part B is added. There should be two distinct layers to Part B. **Do not attempt to mix part packs.** The two layers of Part B mix with each other only in the presence of the resin in Part A. Add part B to part A while stirring. Stir together thoroughly to achieve a uniform mixture, so that there are no streaks. All paint should be well stirred to a uniform consistency **before and during use.** Use a broad paddle or mechanical stirrer. Do not use a stick or dowel.
Induction: After mixing, allow to stand for 10 minutes before stirring again, then applying.
- **Mixed Pot Life:** SwiftEpoxy HB has a mixed pot life of approximately 90 minutes at 20°C and 50% relative humidity. Do not attempt to extend this time by thinning with SVX, as chemical properties will be adversely affected.

APPLICATION CONDITIONS

Temperature: At the substrate, temperature should be between 5° and 25° C. Painting of mineral substrates is best done to avoid the peak temperature of the day, as the substrate temperature is static or falling.

Humidity: Any humidity level is acceptable, assuming a the substrate is not wet from rain or condensation (dew).

Intercoat Times: Minimum 12 hrs, maximum 30 hrs at 20° C and 50% relative humidity. You must prepare the surface again if the previous coat can no longer be indented with a fingernail. Best practice is for two coats to be applied starting at the same time on subsequent days.

Spread Rate: Recommended spread rate is 8 m²/ltr per coat, to produce a dry film build on a non-porous substrate of approximately 110 microns per coat. Attempting to apply the paint at greater than the recommended spread rate will result in a grainy finished film with poor protective qualities. The paint may be applied as a high-build coating at up to 160 microns on walls, higher on floors (about 6 – 7 sq metres per litre).

Cure Rate: SwiftEpoxy HB is touch dry within 6 hrs, print free within 10 hrs at conditions of 20° C and 50% RH, assuming good airflow. Solvent release from coating is not possible once the coating is immersed in water. Allow a minimum of 5 days before immersing. Do not expose to strong chemicals until 12 days after painting.

Painting Mineral Substrates

- You will need to prime unpainted mineral substrate with one coat minimum of SwiftEpoxy primer or other primer as recommended by Macleod Industries. Marblesheen™, Quartzon™, or other coloured or very porous substrates may require two coats.
- After priming/sealing, or over previously existing paint, apply two coats of unthinned SwiftEpoxy HB at standard spread rate.

Painting Steel

- Prime with a suitable metal primer (zinc rich or etch primer) which can be overcoated with epoxy paints.
- Apply two coats of SwiftEpoxy HB, unthinned.

Painting Aluminium

- Contact Macleod Industries directly for application advice.

Painting Fibreglass

- Apply two coats of SwiftEpoxy HB, unthinned.

Painting Other Substrates

- *Contact Macleod Industries directly for application advice.*

IMPORTANT NOTES:

- Check batch numbers on part A. If tins of part A are from different batches, and there are not enough of any one batch for a

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- single coat, mix the different batches together before application.
- This product is an epoxy, and as such is prone to the effects of UV light. In all bisphenol-based epoxies this takes the form of yellowing and chalking. SwiftEpoxy HB has been engineered to minimize this occurrence, but chalking will still occur over the life of the coating. Chalking and yellowing will be most extreme under harsh chemical environments, and in full sun.
 - SwiftEpoxy HB is not a flexible coating. If substantial substrate movement is expected, another coating type may be more suitable.
 - Many coloured render swimming pool finishes were never intended to be painted. As adhesion of paint was not engineered for, overcoating is sometimes difficult. Coloured or uncoloured render surfaces with no topcoat may degrade to the point of being unsound in fully immersed conditions. Painting will not solve serious structural problems.
 - Allow film to cure before immersing in water. For swimming pools, the standard is 5-7 days. It is vital that the small amount of solvent in SwiftEpoxy HB leaves the coating before fully immersed. Chemical curing takes place even after the solvent is gone, and even under full immersion. It is recommended that you do not chemically treat your pool for 2 days after filling, and do not superchlorinate, or "shock" the pool, at least for the first two weeks of operation. Macleod Industries Australia advises that avoiding "shocking" the pool will greatly enhance the lifespan of its own product or of any pool finish.
 - Macleod Industries is not associated with the manufacturers or installers of Marblesheen™ or Quartzon™. Macleod Industries neither promotes nor disparages these products, and the names of these products are merely used as an example of coloured render finishes in common use in Australia.
 - Ensure that water you use to fill fish ponds or water features which will contain fish is suitable for the purpose. A large percentage of council and bore water contains chlorine and fluorine compounds, or other minerals, at levels which are injurious to certain aquatic animal and plant life. Contact pet and plant shops in your area which specialize in fish and aquatic plants for advice on treating the water in your area.
 - Follow the advice of a qualified pool maintenance professional on proper chemical levels for your pool.

The Langelier Index is the Best Guide You Can Use to Determine Whether Your Pool is Balanced.

SAFE USE AND HANDLING:

- Avoid contact with skin and eyes. Avoid breathing vapour.
- Wear protective gloves and clothing when using SwiftEpoxy HB
- If poisoning occurs, contact a doctor or the Poisons Information Centre in your area.
- If swallowed, do not induce vomiting. Give a glass of citrus juice or water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If in eyes, hold eyes open and flood with water for a minimum of 15 minutes and contact a doctor.

ENVIRONMENTAL PROTECTION:

- Do not spill this product or its thinner in or near waterways.
- Spilled paint (fully mixed A and B), drop cloths with paint spills, used rollers and soiled clothing may be safely disposed of as household rubbish **only when the paint is fully cured and**

entirely free of all solvent.

- Residuals in part B are a corrosive and should be disposed of safely. Part A tin is inert chemically if you have mixed parts A and B in that tin and after any residual solvent is gone. The fully cured Part A tin may be disposed of safely with Hard & Green rubbish pick ups. Contact your council or rubbish collection company. You may return any and all packaging of these products to Macleod Industries for disposal. Any drips of Part B should be wiped up with a rag wet with SVX thinner. Rags, clothing or other items wet with unreacted Part B, or the container Part B is shipped in, should never be disposed of with household rubbish. Please return to Macleod Industries or contact professionals for advice.
- Please contact Macleod Industries directly if you or your organization have questions or advice about the environmental impact of Macleod products.

CONDITIONS OF SALE:

- *This product is manufactured to the highest standard and is sold primarily for commercial and industrial use. All recommendations as to the suitability and methods of application provided by the company and its agents are based on extensive research and testing. However, the actual use of the product may be affected by conditions which the company cannot foresee or control (i.e. application techniques or conditions other than those specified in this publication, application on substrate which is unspecified, unsound, or contaminated, inadequate curing of the coating, or exposure to chemicals or concentrations of chemicals the coating is not specified as being chemically resistant to). The liability of the Company is limited to the replacement of the product, entirely at its discretion. The Company shall not be liable in a situation where its recommendation as to suitability and application has not been complied with.*