

THE LAB[®]

Chemicals & Coatings



Technical and Material Safety Data Sheet
Version: 2026



BIO THERMOGUARD

THE LAB BIO-THERMOGUARD

Product Family Classification: Roof Systems

Typical System Guidance

Typical roof coating system:

1. **BIO-ALGAE** – treatment for fungal or algae contamination
2. **BIO-WASH** – roof cleaning and preparation
3. **BIO-PRIME Primer** – for porous substrates OR
BIO-RUST Primer – for metal roofing
4. **BIO-THERMOGUARD** – two coat topcoat system

Routine inspection and maintenance is recommended to maintain long-term coating performance.

Product Description

BIO-THERMOGUARD is a premium acrylic copolymer roof coating designed to provide advanced weather protection and thermal reflective performance on prepared roofing substrates. The formulation cures to form a highly flexible, tightly adherent protective membrane capable of accommodating thermal movement while maintaining excellent durability and environmental resistance.

The coating is engineered to reflect a significant portion of solar radiation, reducing roof surface heat build-up and contributing to improved thermal performance of roofing systems. The elastomeric film provides excellent resistance to ultraviolet degradation, pollution and moisture ingress while maintaining long-term colour retention.

BIO-THERMOGUARD is particularly suited to roofing systems exposed to severe sunlight and environmental conditions where both durability and heat-reflective performance are required. The coating adheres strongly to properly prepared fibre cement, concrete roof tiles, galvanised metal roofing and previously coated roof surfaces.

When applied as part of The Lab integrated roof coating systems using appropriate preparation products and primers, **BIO-THERMOGUARD** provides long-term roof protection and enhanced building energy performance.

The cured coating provides a dirt-shedding surface that helps maintain long-term appearance while reducing maintenance. It also acts as an effective barrier against carbon dioxide ingress, assisting in the protection of reinforced concrete from carbonation.

Technical Data Summary

Product Type	Acrylic copolymer roof coating
Finish	Satin heat-reflective finish
Colour Range	Standard roof colours
Application Method	Brush, roller or airless spray
Recommended Coats	Minimum two coats
Coverage	+/- 2–4 m²/L per coat depending on substrate
Touch Dry	+/- 30 minutes at 25°C
Recoat Time	+/- 2 hours
Clean Up	Water
Flammability	Non-flammable

Coverage may vary depending on substrate porosity, surface profile and application technique.

These values are typical laboratory results and serve as a guide only. Practical coverage will vary depending on surface profile, porosity and application method.

Intended Uses

BIO-THERMOGUARD is recommended for:

- High-performance roof protection systems
- Buildings exposed to severe sunlight and high UV environments
- Roof coatings requiring **thermal reflective properties**
- Industrial and commercial roof refurbishment projects
- Residential roofing systems where improved heat management is beneficial
- Reinforced concrete structures requiring protection against carbonation
- Roof refurbishment projects
- Commercial and industrial roof maintenance

Not recommended for surfaces **permanently submerged in water** such as swimming pools, dams or ponds.

Principal Characteristics

- Premium acrylic copolymer coating technology
- Excellent solar reflective and heat reduction properties
- Highly flexible elastomeric coating film
- Excellent UV stability and weather resistance
- Vapour permeable coating allowing substrate moisture release
- Good resistance to pollution and environmental contamination
- Excellent adhesion to primed substrates
- Quick drying allowing multiple coats in one day
- Water-based formulation with low odour
- Supplied ready for application without thinning.
- Excellent scrub resistance

Limitations

BIO-THERMOGUARD is not recommended for:

- Swimming pools
- Dams
- Ponds
- Surfaces subjected to permanent immersion
- Negative hydrostatic pressure

Surface Preparation

All substrates must be clean, sound and completely dry prior to coating application.

Remove all dirt, grease, chalking coatings, fungal growth and loose material. Biological contamination should be treated using **THE LAB BIO-ALGAE** followed by thorough rinsing.

Preparation guidelines:

Metal roofing

Clean thoroughly using **THE LAB BIO-WASH** to remove oil and contaminants. Prime with **THE LAB BIO-RUST PRIMER**.

Fibre cement sheeting

Clean using high-pressure water or mechanical brushing and prime using **THE LAB BIO-PRIME**.

Concrete or cement roof tiles

Remove loose material and friable surfaces using high-pressure water cleaning. Prime with **THE LAB BIO-PRIME**.

Previously painted surfaces must be cleaned thoroughly and poorly adhering coatings removed.

Application Guidelines

Stir thoroughly before use.

BIO-THERMOGUARD may be applied by brush, roller or airless spray equipment.

Apply a minimum of two coats to achieve uniform coverage and durability.

Prior to application, always follow these basic product checks:

- Inspect packaging and ensure containers are sealed, undamaged and within shelf-life
- Open product and visually inspect for abnormalities, contamination, skinning or separation
- Stir product thoroughly before and during use where required
- For multi-component products, ensure correct mixing ratios and induction periods are followed
- Confirm substrate condition, moisture levels and environmental conditions are suitable
- Conduct a small test patch to confirm adhesion, appearance and compatibility prior to full application

Do not apply coatings when:

- Ambient temperature is below 10°C
- Rain is imminent
- Surfaces are wet or contaminated

Ensure recommended spreading rates are maintained to achieve correct film thickness. Allow adequate drying time between coats.

Storage

Store in original sealed containers in a cool, dry and well-ventilated environment.

Protect containers from:

- Direct sunlight
- Extreme heat
- Freezing temperatures

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The technical information, recommendations, specifications and system guidance contained in this document are provided in good faith and are based on laboratory testing, field experience and current product knowledge available at the date of publication. Such information is intended solely to assist specifiers, contractors, applicators and end users in selecting and applying suitable coating systems and does not relieve any party from independently assessing product suitability for the intended application and site conditions.

The performance of any coating system is materially dependent upon factors beyond the control of The Lab Chemicals & Coatings, including but not limited to correct substrate assessment, cleaning and decontamination procedures, surface preparation, substrate condition, moisture content, environmental conditions, product storage and handling, mixing procedures where applicable, film thickness achievement, adherence to specified system build requirements, application techniques and ongoing maintenance practices.

Failure to strictly follow the instructions, specifications, limitations and recommendations contained within this Technical Data Sheet, associated specifications, written recommendations or supplementary documentation may adversely affect product performance and may invalidate performance expectations, warranties or related claims.

Users are strongly advised to conduct suitability trials and test applications under actual site conditions prior to full-scale application.

To the best of our knowledge, the information contained herein is true and accurate at the date of issue and remains subject to change without prior notice. Users are advised to contact The Lab Chemicals & Coatings prior to specification or ordering to ensure that the correct product and system are selected for the intended application.

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The above information must be read in conjunction with the General Terms and Conditions of The Lab Chemicals & Coatings (Pty) Ltd and The Lab George (Pty) Ltd, available at: www.thelabcc.co.za or upon request.

Material Safety Data



SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

CAS no. : N/A

EC no. : N/A

UN No. : 1263 SAPMA: 4-H-C

In emergency contact: The Lab Chemicals & Coatings @ 0845071767

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification: Not classified as hazardous

No significant quantity of classified hazardous substances present.

(CL/RL = Controlled/Recommended level 'S' = Skin annotation)

SECTION 3. HAZARDS IDENTIFICATION

SAPMA Health Rating: 4-MINIMAL - No great risk to health

Inhalation: Avoid exposure to vapours, fumes and mists.

Skin: No hazard expected if used in moderation.

Eyes: No direct hazard is expected but possible contact with any chemical must always be avoided.

Ingestion: Irritating and nauseating.

No carcinogenic, mutagenic or genetic effects established

May have short term environmental effects. Contain, monitor & remove.

SECTION 4. FIRST AID MEASURES

Inhalation: Move to fresh air.

Skin: Always wash after handling chemical substances.

Eyes: In case of any contact and discomfort rinse well with water and seek medical advice.

Ingestion: Wash mouth with plenty of water. Do NOT induce vomiting. Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Dried residues - combustible with toxic fumes.

No direct explosion hazard expected.

SECTION 6. ACCIDENTAL RELEASE MEASURES - SEE ALSO SECTIONS 5, 8, 13

Contain & collect. Keep out of drains and sewers

SECTION 7. HANDLING AND STORAGE

Store separately from any reactive substances - oxidisers in particular.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

SAPMA Rating: 4-H-C PPE: Eye protection

Inhalation: In case of insufficient ventilation, use suitable respiratory protection.

Skin: Use only as directed.

Eyes: Avoid direct contact. Never touch eyes with dirty hands or gloves.

Ingestion: Observe the rules for hygiene. Wash before eating, drinking or smoking.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical class: Non-hazardous material Description: Viscous liquid Smell: Pungent
FlashPoint (C): N/A

SECTION 10. STABILITY AND REACTIVITY

Stable under normal conditions
Inert - no reaction with fire-fighting water

SECTION 11. TOXICOLOGICAL INFORMATION

No carcinogenic, mutagenic or genetic effects established

SECTION 12. ECOLOGICAL INFORMATION

May have short term environmental effects. Contain, monitor & remove.

SECTION 13. DISPOSAL INFORMATION

Use reputable waste disposal contractors. Exercise caution in disposal of used containers.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous for transport



SECTION 15. REGULATORY INFORMATION

EC no. : N/A
EC Classification: Not classified as hazardous
S2 - Keep out of reach of children. (Retail sales items)

SECTION 16. OTHER INFORMATION

IN CASE OF ANY DISCOMFORT ALWAYS SEEK MEDICAL ADVICE.

This MSDS conforms to General Administrative Regulations of 6 Sept.1996 (ISO-11014/ANSIZ400.1.1996)
OELs derived from OHS Act Regulations for Dangerous Chemical Substances of 25 Aug.1995 (EH-42)
SAPMA Rating - South African Paint Manufacturers Association Guide to Health Hazards (SABS ARP 006:1991) All
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