

SBC

METHOD STATEMENT

APPLICATION MANUAL

SOLAR GUARD PRO AQUA TRAPULIN AND RUBBER PAINT

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1. PURPOSE

The purpose of this Method Statement is to define the correct procedures for the preparation, mixing, application, inspection and maintenance of the **SOLAR GUARD PRO AQUA TRAPULIN AND RUBBER PAINT** coating system.

Compliance with this document ensures that the coating system is applied consistently and in accordance with the manufacturer's technical requirements, thereby achieving the specified protective, decorative and performance characteristics.

This document also establishes the minimum quality control requirements necessary for successful application and acceptance of the coating system.

2. SCOPE

This Method Statement applies to all application activities involving **SOLAR GUARD PRO AQUA TRAPULIN AND RUBBER PAINT**.

It is intended for use by:

- coating contractors;
- applicators;
- quality inspectors;
- project managers;
- maintenance personnel;
- technical service engineers;
- customer representatives responsible for inspection and acceptance.

The procedures described herein apply to both factory and on-site application unless otherwise specified by the manufacturer.

3. REFERENCE DOCUMENTS

The latest editions of the following documents shall be used together with this Method Statement.

Manufacturer Documentation

- Technical Data Sheet (TDS)
- Safety Data Sheet (SDS)
- Product Description
- System Specification
- Product Label Specification
- Packaging Specification

Quality Documentation

- Laboratory Test Reports
- Factory Quality Control Records
- Batch Release Documentation
- Certificate of Analysis (where applicable)

International Standards

Where applicable, inspections and testing shall be performed in accordance with relevant international standards, including but not limited to:

- ISO 2409 – Cross-cut adhesion test
- ISO 1520 – Erichsen cupping test
- ISO 6272 – Impact resistance
- ISO 2811 – Density
- ISO 3251 – Non-volatile matter
- ISO 2431 – Flow time
- ISO 11507 – Artificial weathering
- Other applicable ISO, EN or ASTM standards specified within the product documentation.

4. PRODUCT DESCRIPTION

SOLAR GUARD PRO AQUA TRAPPAULIN AND RUBBER PAINT is a two-component, waterborne aliphatic polyurethane coating system specifically developed for the protection of flexible substrates exposed to demanding outdoor environments.

The coating combines excellent mechanical durability with long-term weather resistance and advanced infrared reflective technology.

After curing, the coating forms a highly flexible protective film providing:

- excellent adhesion;
- high abrasion resistance;
- outstanding UV resistance;
- superior weather resistance;
- excellent colour retention;
- water resistance;
- long-term flexibility;
- attractive decorative appearance.

The curing mechanism is based on chemical cross-linking between Component A and Component B.

5. HEALTH, SAFETY AND ENVIRONMENTAL REQUIREMENTS

All application work shall be carried out in accordance with applicable occupational health and safety regulations.

Personnel shall wear appropriate personal protective equipment (PPE), including:

- chemical resistant gloves;
- protective clothing;
- safety goggles;
- safety footwear.

Where spray application is carried out, appropriate respiratory protection shall be used.

Adequate ventilation shall always be maintained during mixing, application and curing.

Before commencing work, all personnel shall read and understand the current Safety Data Sheet (SDS).

6. REQUIRED EQUIPMENT

Mixing Equipment

- Low-speed mechanical mixer (300–500 rpm)
 - Clean mixing containers
 - Digital weighing scale
 - Measuring containers
 - Fine paint filter (where required)
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Application Equipment

The coating may be applied using:

- brush;
 - short nap roller;
 - conventional spray equipment;
 - airless spray equipment where appropriate.
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Inspection Equipment

The following measuring equipment is recommended:

- Dry Film Thickness (DFT) gauge
 - Wet Film Thickness (WFT) gauge
 - Surface thermometer
 - Ambient thermometer
 - Relative humidity meter
 - Dew point calculator
 - Adhesion test equipment where specified
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7. SUITABLE SUBSTRATES

The coating system may be applied onto the following properly prepared substrates:

- PVC tarpaulins;
- PVC-coated fabrics;
- EPDM rubber;
- natural rubber;
- synthetic rubber;
- aluminium;
- galvanized steel;
- primed steel;
- wood;
- other compatible substrates approved by the manufacturer.

Where substrate compatibility is uncertain, a trial application shall be carried out before full-scale production.

8. SURFACE PREPARATION

Correct surface preparation is essential for achieving optimum coating performance.

The substrate shall be:

- clean;
- dry;
- structurally sound;
- free from contaminants.

The following shall be completely removed:

- dust;
- grease;
- oil;
- silicone contamination;
- wax;
- loose coatings;
- corrosion products;
- dirt and other contaminants.

Where necessary, mechanical abrasion shall be carried out to improve adhesion.

Following surface preparation, the substrate shall be inspected prior to coating application.

9. MIXING PROCEDURE

The coating system shall only be mixed immediately before application.

The specified mixing ratio shall always be maintained.

9.1 Mixing Ratio

Component	Mixing Ratio
Component A	6.5 parts by weight
Component B	1 part by weight

No deviation from the specified ratio is permitted.

9.2 Mixing Instructions

1. Open Component A and stir thoroughly until a homogeneous consistency is achieved.
2. Slowly add Component B while continuously mixing.
3. Mix using a low-speed mechanical mixer (300–500 rpm).
4. Continue mixing until the material is completely homogeneous.
5. Ensure that material adhering to the sides and bottom of the container is fully incorporated.
6. If necessary, strain the mixed coating before application.

Do not introduce excessive air into the coating during mixing.

9.3 Pot Life

The mixed material shall be used within the specified pot life.

Ambient Temperature Pot Life

20°C Minimum 2 hours

Material that has exceeded its pot life shall not be diluted, re-mixed or reused.

10. APPLICATION PROCEDURE

The coating may be applied by:

- Brush
- Roller
- Conventional spray equipment
- Airless spray equipment (where appropriate)

The application method shall be selected according to:

- substrate type;
 - project requirements;
 - production conditions;
 - required surface finish.
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10.1 Application Sequence

Where specified by the coating system:

First Coat

SOLAR GUARD PRO AQUA PUR White IR UV

Finish Coat

SOLAR GUARD PRO AQUA TRAPULIN AND RUBBER PAINT

Each subsequent coat shall only be applied after the previous coat has adequately dried.

10.2 Film Thickness

Recommended application:

Parameter	Value
Number of coats	2
Recommended dry film thickness per coat	Approximately 60 µm
Maximum dry film thickness per coat	80–100 µm

Parameter	Value
Theoretical coverage	5–7 m ² /kg/coat
Excessive film thickness may adversely affect curing performance.	

10.3 Environmental Conditions

Application shall only be carried out when:

- substrate temperature is above +10°C;
- substrate is dry;
- no condensation is present;
- rain is not expected during application or curing;
- adequate ventilation is available.

Application shall not proceed under adverse environmental conditions.

11. DRYING AND CURING

Typical drying times under standard laboratory conditions (20 ±2°C):

Stage	Typical Time
Dust Dry	Maximum 1 hour
Through Dry	Maximum 24 hours
Recoatable	24 hours
Full Cure	5 days

Accelerated curing:

Temperature	Time
50–70°C	1–1.5 hours

Actual curing times may vary depending on:

- ambient temperature;
 - relative humidity;
 - substrate temperature;
 - ventilation;
 - applied film thickness.
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12. QUALITY CONTROL

Quality inspections shall be performed throughout the application process.

12.1 Substrate Inspection

Prior to coating application, verify:

- cleanliness;
 - dryness;
 - freedom from grease and oil;
 - surface integrity;
 - absence of loose coatings;
 - suitability for coating.
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12.2 Material Inspection

Before mixing, verify:

- product identification;
- batch number;
- shelf life;
- packaging condition;
- storage conditions.

Do not use materials showing signs of contamination or expired shelf life.

12.3 Application Inspection

During application, monitor:

- mixing ratio;
- pot life;
- application method;
- wet film thickness;
- uniformity of application;
- coating continuity.

Correct any deficiencies immediately.

12.4 Final Inspection

Upon completion of curing, inspect the coating for:

- colour uniformity;
- gloss consistency;
- dry film thickness;
- adhesion (where specified);
- surface defects;
- complete coverage.

Inspection records should be maintained as part of the project quality documentation.

13. ACCEPTANCE CRITERIA

The completed coating system shall comply with the following requirements:

- ✓ Uniform colour throughout the coated surface.
- ✓ Uniform appearance and gloss.
- ✓ No visible runs or sags.
- ✓ No pinholes.
- ✓ No blistering.
- ✓ No cracking.
- ✓ No peeling or delamination.
- ✓ Dry film thickness within the specified range.
- ✓ Satisfactory adhesion to the substrate.

Any areas failing to meet these acceptance criteria shall be repaired before final approval.

14. REPAIR PROCEDURE

Local damage may be repaired using the following procedure:

1. Identify the damaged area.
2. Remove loose or defective coating.
3. Clean the surface thoroughly.
4. Lightly abrade the surrounding coating if required.
5. Remove all dust and contaminants.
6. Degrease the repair area.

7. Apply fresh coating in accordance with this Method Statement.
8. Allow the coating to cure fully.
9. Inspect the repaired area.

Where extensive damage exists, complete recoating of the affected area may be necessary.

15. CLEANING OF EQUIPMENT

Equipment shall be cleaned immediately after use.

Recommended cleaning:

- Clean water.
- Manufacturer-approved cleaning agent if necessary.

Once cured, the coating can only be removed by mechanical means.

16. WASTE MANAGEMENT

Dispose of unused coating materials and packaging in accordance with applicable local environmental regulations.

Do not:

- discharge coating materials into drains;
- release materials into natural waterways;
- dispose of hazardous materials with general waste where prohibited.

Empty containers shall be drained completely before disposal or recycling.

17. COMMON APPLICATION DEFECTS AND CORRECTIVE ACTIONS

Defect	Possible Cause	Corrective Action
Poor adhesion	Inadequate surface preparation	Clean, degrease and prepare the substrate correctly before application
Runs or sags	Excessive film thickness	Apply thinner, more uniform coats
Blistering	Moisture beneath the coating	Ensure the substrate is completely dry before application
Uneven finish	Inadequate mixing	Mix thoroughly and maintain the specified mixing ratio
Slow drying	Low temperature or high humidity	Apply only within the recommended environmental conditions

Defect	Possible Cause	Corrective Action
Gloss variation	Uneven application or inconsistent film thickness	Maintain a consistent application technique and specified film thickness
Colour variation	Different batch numbers or inadequate mixing	Use material from the same batch where possible and mix thoroughly before application