SBC

QUALITY CONTROL PLAN

THERMO SHIELD® AQUA IR 2K

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1. PURPOSE

This Quality Control Plan defines the inspection, verification and documentation requirements for the application of the **THERMO SHIELD® AQUA IR 2K** coating system.

The purpose of this document is to ensure that all coating works are carried out in accordance with SBC technical documentation, project specifications, and applicable quality requirements.

This Quality Control Plan establishes the minimum inspection and quality assurance activities necessary to achieve consistent workmanship, reliable coating performance, and long-term durability of the applied system.

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2. SCOPE

This document applies to all projects involving the application of the **THERMO SHIELD® AQUA IR 2K** coating system.

It is intended for use by:

- Contractors
- Applicators
- Site Supervisors
- Project Managers
- Quality Inspectors
- Independent Inspectors
- Client Representatives

The requirements of this document shall be implemented throughout all stages of the coating process, from material delivery to final project handover.

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3. REFERENCES

This document shall be used in conjunction with the latest approved versions of the following SBC documents:

- Technical Data Sheet (TDS)
- Product Description
- System Specification
- Application Guide
- Application Details
- Maintenance Guide
- Inspection and Acceptance Checklist
- Declaration of Conformity
- Safety Data Sheet (SDS)

Where project-specific documentation establishes additional requirements, those requirements shall take precedence.

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4. RESPONSIBILITIES

Contractor

The Contractor shall be responsible for:

- ensuring that qualified personnel perform all coating works;
- using only approved SBC materials;
- complying with all approved application procedures;
- maintaining quality records;
- reporting any deviations or non-conformities without delay.

Site Supervisor

The Site Supervisor shall:

- verify environmental conditions before and during application;
- supervise coating activities;
- ensure compliance with project specifications;
- coordinate inspection activities;
- maintain daily site records.

Quality Inspector

The Quality Inspector shall:

- perform all required inspections;
- verify compliance with acceptance criteria;
- carry out measurements where required;
- record inspection results;
- identify and document non-conformities;
- approve completed work when acceptance criteria have been satisfied.

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5. INSPECTION STAGES

Quality inspections shall be carried out at the following stages:

- Material receipt
- Material storage
- Substrate inspection
- Surface preparation
- Material mixing
- Primer application (where applicable)
- Coating application
- Intermediate inspections
- Final inspection
- Project handover

Each inspection stage shall be documented in accordance with the project quality requirements.

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6. MATERIAL RECEIPT INSPECTION

Upon delivery, the following shall be verified:

- correct product identification;
- product code;
- batch number;
- quantity delivered;
- packaging condition;
- expiry or shelf-life date;
- evidence of transport damage.

Damaged, contaminated or expired materials shall not be accepted for use.

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7. STORAGE INSPECTION

Stored materials shall be inspected to confirm that they are:

- protected from direct sunlight;
- protected from moisture;
- stored within the specified temperature range;
- kept in unopened original containers;
- stored in accordance with the Technical Data Sheet.

The First-In, First-Out (FIFO) inventory principle should be applied whenever practical.

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8. SUBSTRATE INSPECTION

Prior to coating application, the substrate shall be inspected to verify:

- cleanliness;
- structural soundness;
- dryness;
- completion of repairs;
- absence of contamination;
- suitability for coating application.

Coating work shall not commence until the substrate has been formally accepted.

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9. ENVIRONMENTAL CONDITIONS

The following environmental conditions shall be measured and recorded:

- ambient air temperature;
- substrate temperature;
- relative humidity;
- dew point;
- weather conditions.

Measurements shall be taken before application begins and periodically throughout the application process to ensure compliance with the Technical Data Sheet.

10. MATERIAL MIXING INSPECTION

All coating materials shall be inspected prior to application.

The following shall be verified:

- Correct Component A and Component B are used.
- The mixing ratio complies with the Technical Data Sheet.
- The specified mixing procedure has been followed.
- The material has been mixed until a homogeneous consistency is achieved.
- The specified pot life has not been exceeded.

Materials that have exceeded their pot life or have been mixed incorrectly shall not be applied.

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11. COATING APPLICATION INSPECTION

Coating application shall be continuously monitored to ensure compliance with the approved application procedure.

The inspection shall verify:

- the application method;
- the suitability of application equipment;
- the number of coats applied;
- uniform coating coverage;
- completion of stripe coating where specified;
- treatment of edges, corners and other critical details.

Where required by the project specification, Wet Film Thickness (WFT) measurements shall be performed during application.

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12. FILM THICKNESS INSPECTION

Correct film thickness is essential for achieving the intended performance of the coating system.

Where specified, the following measurements shall be carried out:

- Wet Film Thickness (WFT)
- Dry Film Thickness (DFT)

Measurement frequency shall be defined by the project specification.

All measuring instruments shall have valid calibration certificates.

Measurement records shall be retained as part of the project quality documentation.

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13. VISUAL INSPECTION

Following application, the coating shall be visually inspected.

The finished surface shall exhibit a uniform appearance without visible defects.

The following defects are unacceptable:

- runs or sags;
- blistering;
- cracking;
- peeling or flaking;
- pinholes;
- craters;
- insufficient coverage;
- discolouration;
- contamination or embedded foreign matter.

The coating shall form a continuous and uniform protective film over the entire treated surface.

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14. CONTROL OF NON-CONFORMITIES

Any identified non-conformity shall be documented and evaluated.

The non-conformity record shall include:

- description of the defect;
- exact location;
- date of identification;
- probable cause;
- corrective action taken;
- verification of repair.

Repairs shall only be carried out using SBC-approved repair procedures and compatible materials.

Where significant non-conformities are identified, additional inspections shall be performed following completion of corrective actions.

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15. FINAL INSPECTION

Before project completion, a final inspection shall confirm that:

- all specified coating layers have been applied;
- complete surface coverage has been achieved;
- film thickness complies with project requirements;

- the coating is free from unacceptable defects;
- all required documentation has been completed;
- all identified non-conformities have been corrected.

Where required, additional testing shall be carried out to verify compliance with project specifications.

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16. PROJECT HANDOVER

Prior to project handover, the following documentation shall be available, as applicable:

- Technical Data Sheet (TDS)
- Product Description
- System Specification
- Application Guide
- Application Details
- Maintenance Guide
- Declaration of Conformity
- Safety Data Sheet (SDS)
- Inspection Reports
- Measurement Records
- Quality Control Records
- Photographic Documentation

The project shall only be considered complete once all required documentation has been reviewed and accepted.

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17. DOCUMENT RETENTION

Quality records generated during the project shall be retained as part of the permanent project documentation.

Typical records include:

- inspection reports;
- measurement records;
- calibration certificates;
- environmental monitoring records;
- photographic documentation;

- repair records;
- project handover documentation.

Document retention periods shall comply with contractual requirements, applicable regulations and the Quality Management System.

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18. INSPECTION AND TEST PLAN (ITP)

Inspection Item	Acceptance Criteria	Inspection Method	Frequency	Responsible Person	Status
Material Receipt	Correct product and packaging	Visual inspection	Every delivery	Contractor	□
Storage Conditions	In accordance with TDS	Visual inspection	Daily	Site Supervisor	□
Substrate Condition	Clean, dry and structurally sound	Visual inspection	Every work area	Quality Inspector	□
Environmental Conditions	Within specified limits	Measurement	Before application	Site Supervisor	□
Material Mixing	Correct ratio and homogeneous mixture	Visual inspection	Every batch	Applicator	□
Pot Life	Within specified limit	Time verification	Continuous	Applicator	□
Wet Film Thickness (WFT)	According to TDS	WFT Gauge	Sampling	Quality Inspector	□
Dry Film Thickness (DFT)	According to TDS	DFT Gauge	As specified	Quality Inspector	□
Surface Finish	Uniform and defect-free	Visual inspection	Entire surface	Quality Inspector	□
Documentation	Complete	Document review	Project completion	Project Manager	□

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19. DOCUMENT CONTROL

This Quality Control Plan forms part of the controlled documentation of the SBC Quality Management System.

Revisions shall only be issued through the approved document control procedure.

Only the latest approved revision of this document shall be used during project execution.