شركة الرواد العربية
رواد بجميع انظمة العزل المائي والحراري

Roof Expansion Joints treatment and Membrane Waterproofing method statement

Purpose:

To define the procedure for the installation of waterproofing at roof expansion joints and the application of a waterproof membrane to ensure a durable and watertight seal.

Scope of Work:

This method statement covers the preparation, installation, and quality checks required for waterproofing roof expansion joints and applying membrane waterproofing.

Materials Required:

Expansion Joint Covers (elastomeric,	BC Repair 100
Primer ASTM D41 Grade	BC tec Bitumen primer FC
Waterproofing Membrane	Izomax Iso proof
Backer Rod	BC Backer Rod
Re inforcement layer	BC Geo textile
Sealant (polyurethane)	BC Tec 30S

Tools & Equipment:

Cleaning brushes
Utility knife
Roller or trowel for liquid-applied membrane
Heat gun or hot air welding machine (for thermoplastic sheet membranes)
Measuring tape
Caulking gun
Roller for primer application
Hand tools (e.g., spatulas, scrapers)

Responsibilities:

Site Engineer: Ensure all work is completed according to project specifications and method statement.
Supervisor: Manage workers and ensure compliance with safety and quality requirements.
Quality Inspector: Verify the quality of materials and workmanship.

Safety Precautions:

Wear appropriate personal protective equipment (PPE) such as gloves, helmets, safety shoes, and goggles.
Follow the Material Safety Data Sheet (MSDS) for all chemicals and adhesives.
Ensure adequate ventilation when applying primers or liquid membranes.
Use fall protection systems for working at heights.

Procedure:

1. Surface Preparation:
1.1. Clean the surface thoroughly to remove dust, debris, grease, or contaminants. 1.2. Ensure the substrate is dry and free from standing water. 1.3. Inspect the expansion joint gap and ensure it is free of loose particles.

2. Primer Application:

2.1. Apply the primer (if required) to the prepared substrate using a roller or brush. 2.2. Allow the primer to dry as per the manufacturer’s guidelines.

3. Installation of Expansion Joint Cover:

3.1. Insert a backer rod into the expansion joint gap (if specified).
3.2. Apply the sealant along the joint gap.

3.3. Install the expansion joint cover, ensuring proper alignment and adhesion.
3.4. Secure the cover using mechanical fasteners if required.

4. Waterproof Membrane Application:

For Sheet Membranes:
4.4. Lay the sheet membrane over the substrate, ensuring overlaps of at least 50–100 mm between adjacent sheets.
4.5. Use adhesive to bond the sheet membrane to the surface and around the expansion joint.
4.6. Heat-weld or seal overlaps to ensure watertight joints.

5. Protective Layer Installation (if specified):

5.1. Apply a protective coating or install a protection board over the waterproof membrane to shield it from damage during subsequent works.

Inspection & Testing:

Check for uniformity in membrane application.
Perform a water ponding test or flood test to check for leaks.
Verify proper adhesion at overlaps and around expansion joints.
Ensure all expansion joints are fully sealed and watertight.

Completion:

1. Handover the completed waterproofing system for further works.

Team APC – Meeting and brief (Safety first)

Surface preparation

شركة الرواد العربية

رواد بجميع انظمة العزل المائي والحراري

Site Engineer

- Supervise operations in accordance with the approved method statement for waterproofing, shop drawings, specifications, material submittals and schedules to achieve the acceptance of the project deliverables.

Site Supervisor

- Supervise closely, the activities designated to them and resume that all instructions and safety procedure are followed and adhered to.
- Supervise the work to ensure that technical, quality safety and purchase order requirements are met.
- Attend daily site meeting and communicate his daily report with the Project/Site Engineer.
- Participate in training and development of his subordinates.
- Organize with the Project/Site Engineer to ensure the availability of plant, equipment and labor to his designated work activities.
- Closely monitor the usage of consumable and materials by his crew in order to minimize wastage.
- Assess craftsmanship of subordinates under his control.

HSE Engineer

- Ensure enforcement of safety procedures in accordance with the approved HSE Plan.
- Will be closely monitoring the site engineer's strict implementation of the MS and Risk Assessment, the use of proper tools and equipment to maintain safety, certifications of equipment and their adherence to safety regulations.
- Reporting of any unsafe work or stopping work that does not comply with ES&H procedures.

First Aider

- The first aider respond promptly when requested, operate with competence, know how to secure additional help when needed.
- Reports incidents and actions taken and comply with requirements for certification.

Banks-man

- The role of a banks-man is to provide additional eyes and ears to assist the operator of the equipment to navigate or operate safely.

Lifting Competent Person

- The role of the Lifting Competent Person is to ensure compliance to safe practice for the loading and unloading of equipment and materials on site.

Site Planning

Preparation

- Permits from the concerned authority shall be obtained prior to start work at the site.
- The contractor shall ensure that all gate passes, permits, tools, materials for safety precautions, manpower are available before the commencement of work.
- The Site Team shall make sure that access roads are always clear from any obstruction and site is always accessible.

Site Clearance

- Before commencing the work, the area shall be cleaned of all debris, materials, or other obstructions.

Traffic Management

- The Site Team with the assistance of the Safety Officers shall coordinate logistics and materials movement through site following the direction and road signs displayed on site. The required

diversion routes shall be marked on drawings including the required traffic signs.

- The Work Permits and Operator Certificates shall be compiled and files for reference by authorized personnel.

- The meeting shall be scheduled prior to the beginning of the work and before any Subcontractor starts on the project.
- General contractual safety, health and environmental requirements.
- Depending upon the phase of waterproofing works, safety concerning to electrical, working at height, working with chemicals etc, shall be discussed to emphasize these meetings.
- Roles of the contractor, subcontractors, authority representatives, and all project workers.
- Accident reporting requirements.
- Specific details of the work to be performed along with the use of personal equipment.
- Emergency procedure.

Procedure – Method Statement for Waterproofing System

Product Delivery, Storage and Handling

- Deliver materials etc, the job site in the manufacturer's original, unopened containers or wrappings with the manufacturer's label, brand name, and installation instructions intact and legible. Comply with the manufacturer's written instructions for proper material storage.
- Storage materials except for membrane, between 15°C and 27°C in air-conditioned space (container) protected from water and direct sunlight.
- Store materials containing solvents in dry, well-ventilated spaces with proper fire and safety precautions. Keep lids on tight.
- Material inspection shall be carried out for all permanent materials. Any materials, which are found to be damaged, shall be removed and replaced.

General Work Condition

- Schedule and execute work in accordance with site construction program and with site conditions.
- Do not disrupt activities in occupied spaces.

Temporary Facilities and Controls

- Water power for construction purposes and lighting should be available at the site and should be made available when required.
- When available, electrical power should be extended as required from the source, provide all trailers connections and fused disconnects.
- Sanitary facilities should be available at the job site.

Materials

As per above table

Risk Assessment

	IMPACT				
LIKELIHOOD	**Neglible**	**Minor**	**Moderate**	**Significant**	**Severe**
Very Likely	Low Med	Medium	Med Hi	High	High
Likely	Low	Low Med	Medium	Med Hi	High
Possible	Low	Low Med	Medium	Med Hi	Med Hi
Unlikely	Low	Low Med	Low Med	Medium	Med Hi
Very Unlikely	Low	Low	Low Med	Medium	Medium

5 Pre-Start Safety Briefing Arrangements

Protective and Safety Equipment

All workers involved shall be equipped with adequate PPE as stated below:

- Safety Helmet with Company Logo
- Safety Boots
- High Visibility Vest
- Safety Goggles
- Hand Gloves
- Coveralls

Information to Personnel

- Safety Induction
- Job Training
- Superintendents Notices/Memos
- Toolbox Talks
- Start Card

Special Safety Requirements

- All necessary personal/protective equipment (PPE).
- Banks-man, wearing distinctive vests shall be assigned to help operators maneuver their equipment.
- The equipment operators shall possess the required licenses and certificates.
- Generated dust shall be controlled by periodic water spraying.
- The required TSTI will be prepared prior to commencement of work and positively implemented.
- The project safety officer is responsible along with the project zone site engineer for ensuring that all operations are carried out with due regard to the safety of all project personnel & property.
- All working activity shall comply with Client Safety Procedure.
- First aid material.
- General management of protection/operation hazards are to be observed.
- Emergency Procedures.

6 Supervision and Monitoring Arrangements for Waterproofing Work

Construction Manager

- He is in charge of all construction activities. Schedule the project in logical steps and budget time required to meet deadlines. Inspect and review projects to monitor compliance with building and safety codes and other regulations.

Temporary Works Construction Manager

- To support the project delivery teams, to support and lead the management and delivery of temporary works engineering whilst ensuring program, cost, quality, and safety objectives are achieved.

Site Engineer

- The Site Engineer shall evaluates the number of materials consumed by each trade to be compared against the planned quantity.

- A construction Foreman is responsible for supervising the workers and also doing actual construction work. The foreman monitors employees to ensure that the work is done efficiently and within quality standards.

Chief Surveyor

- A Chief Surveyor ensures that surveying data are collected and recorded accurately and that all company procedures are followed by crew members.

QA/QC Engineer

- The QA/QC Engineer shall monitor whether the installation works are conforming to the required quality otherwise he shall notify the Site Engineer should he found non-conformance to the ongoing activities. The Site Engineer shall immediately rectify the work to avoid receipt of NCR from the QA/QC Engineer.

HSE Engineer

- The Safety Engineer shall be full time at the site and shall frequently visit all the ongoing works at the site. All safety violations and on-conformance of the HSE Plan shall be registered and immediate action shall be done in coordination with the Site Engineer.

Lifting Competent Person

- The role of the Lifting Competent Person is to ensure compliance to safe practice for the loading and unloading of equipment and materials on site.

7 Environment and Quality Issues

Precautionary Measure

- All precautionary measures shall be briefed to all workers prior to commence activity.

Disposal Requirements

- All waste shall be disposed as per the Construction and Environmental Management Plan and as per Government approved disposal areas.

Inspection, Test and Sampling

- Request for Inspection and Testing will be submitted prior to and after the execution of works.
- A mock-up sample shall be provided on-site for approval prior to the execution of works where required.

Quality Assurance Requirements

- Project specifications

Table 1 – Hazard Consequence

Level	Descriptor	Health & Safety	Environment
5	**Catastrophic**	Multiple fatalities or multiple permanent disabling injuries or disease.	Massive pollution with significant recovery work lasting more than 12 months. Global media interest. Significant permanent damage.
4	**Major**	Fatality or permanent disablement from injuries or disease. Long term absence.	Significant pollution with offsite impact and recovery work requiring 6 – 12 months to fix. Some permanent damage. National and regional media interest
3	**Serious**	Life threatening injury/major health affect to individual requiring medevac to hospital facilities.	Pollution with some offsite impact and recovery work lasting 1 – 6 months.
		Short term absence from work.	Possible outside assistance required to contain. Some local media interest
2	**Medium**	Injury and illnesses requiring treatment by medically qualified person. Complete recovery. No lost time.	Minor pollution, slight or negligible impact, negligible remedial / recovery work lasting less than 1 month. Full recovery possible.
1	**Minor**	Injury which may or may not require first aid treatment. Slight health effect not affecting performance or causing absence.	Minimal pollution effect, contained locally. Complete recovery possible immediately.