



J31 Specification

25 YEAR WARRANTY

Suggested PremTec Waterproofing Technologies Ltd J31 Specification for:

Project Name: Fortress Grove

Date: 17th August 2020

NBS SECTION J31 - SCOPE OF WORKS

Section J31 deals with the installation of the PremTec Waterproofing Technologies System, comprising coverings of Cold Applied Liquid Waterproofing. It includes the vapour control layer and insulation (where these are required) and the Cold Applied Liquid Waterproofing membranes and presumes the deck substrate as stated within the specification below. Accessories are included where relevant.

It is intended for use on projects where the detailed design is completed by the specifier (architect or landscape architect) with technical assistance from the manufacturer as required and should be read in conjunction with any project specific drawings provided.

This section includes:

- The PremTec waterproofing system.
- Thermal insulation to meet the required U value.
- Related PremTec system accessories.

This section does not include:

- Construction of the structural deck.
- Rainwater drainage systems - refer NBS Section R10.

J31 REINFORCED BITUMEN MEMBRANE ROOF COVERINGS

To be read with Preliminaries/ General conditions.

TYPES OF COVERING

110 COLD APPLIED LIQUID WATERPROOFING ROOF COVERING FOR 20 YEAR WARRANTY

- Roof area: Flat Roof
- Substrate: New Concrete Deck
- Primer – 0.3 KG per m2 of GC Primer suitable for Concrete Deck as per clause 320
- Waterproof covering: PremTec Waterproofing system
 - System Supplier: PremTec Waterproofing Technologies Limited, Highcroft Industrial Estate, Horndean, Hampshire, PO8 0BT Tel: 02392 179793 Email: info@premttec-uk.com
- Liquid Coating. Lower Coat of 1 KG per m2 of PremCoat Impermax QC resin
- Geotextile scrim reinforcement layer
- Liquid Coating. Top Coat of 1 KG per m2 of PremCoat Impermax QC resin.
 - Flashings and detail work: 2kg per m2 of PremCoat Impermax QC resin. Install as clause 775A.
- Surface protection: 500gms per m2 Premtec Separation Fleece.

PERFORMANCE

210 ROOF PERFORMANCE

- General: Secure, free draining and weather tight.

PRODUCTS

320A FAST DRYING PRIMER

- Type: GC Primer for New screed and concrete substrate meeting characteristics of BS 8217, clause 5.6.2., supplied by an approved installer.

490 ROOF DRAINAGE OUTLETS

- Manufacturer: _____ .
- Product reference: _____ .
- Material: _____ .
- Size: _____ .
- Fixing: _____ .

EXECUTION GENERALLY

515 ADVERSE WEATHER

- General: Do not lay coverings in high winds, wet or damp conditions or in extremes of temperature unless effective temporary cover is provided over working area.
- Unfinished areas of roof: Keep dry, protect edges of laid membrane from wind action.

520 INCOMPLETE WORK

- End of working day: Provide temporary seal to prevent water infiltration.
- On resumption of work: Cut away tail of membrane from completed area and remove from roof.

530 APPLYING PRIMERS

- Coverage per coat (minimum): Apply 200 to 500 g/m² of undiluted product. Other quantities are possible when used with dilution. Use brush or roller.
- Surface coverage: Even and full.
- Coats: Fully bond. Allow volatiles to dry off thoroughly between coats.

560 GENERAL WORKMANSHIP REQUIREMENTS

- Installation of the PremTec waterproofing system may only be carried out by trained and certified operatives approved by PremTec Waterproofing Technologies Ltd and who carry current ID badges. These should be available for inspection at all times.
- Workmanship must comply with Codes of Practice BS 8217:2005 (or alternatively PremTec's specification where otherwise stated). Non-compliant workmanship will not be permitted, even if the system is watertight. The client will be told that all such faults must be remedied, before the Guarantee is issued.
- All waterproofing materials and system components must be supplied by PremTec, unless otherwise stated. Any sub-standard materials or un-authorized alternatives will be rejected. Any building work which is the responsibility of the roofing contractor and has a bearing on the life of the PremTec System must be carried out by properly trained and qualified tradesmen.
- Any structural damage, peculiarities or details discovered that might affect the performance of the PremTec system, should be reported immediately to the client's representative and PremTec Waterproofing Technologies Limited in order that they may assist in overcoming the problem.
- The contractor is to ensure water tightness of the roof at all times. Proper day joints must be formed at the end of each working day to provide a temporary seal. No mopping or loose covers will be permitted.
- Where building works are to be carried out by other trades, following completion of the waterproofing, the contractor must make adequate provision for supplying protection to prevent damage to the new membranes. The final inspection will not be carried out by the independent surveyor until all associated trades are complete and the roof areas are clear from all debris and protection layers.
- All mechanical and electrical work to plant and equipment should be carried out by competent mechanical and electrical qualified tradesmen. All plant is to be reinstated and recommissioned on completion of the roofing works in accordance with the client's detailed specification.
- Where building works are to be carried out by other trades, following completion of the waterproofing, the contractor must make adequate provision for supplying protection to prevent damage to the new waterproofing.
- If any items of plant/equipment are to be situated on the finished roof, a sacrificial layer of PremTec capping sheet is to be loose laid beneath. This is to extend a minimum 25mm past the point of contact on all sides. In the case of heavy items it may be necessary to introduce a load-spreading slab, please contact PremTec for further advice.
- All lead work to be carried out by skilled tradesmen and in accordance with current codes of practise and the recommendations of the Lead Development Association.
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SUBSTRATES / VAPOUR CONTROL LAYERS / WARM ROOF INSULATION

610A SUITABILITY OF SUBSTRATES (PLYWOOD)

- Substrates generally: Secure, clean, dry, smooth, free from frost, contaminants, voids and protrusions. The new concrete deck, conforming to BS5268 Part 2:2002 & CPD/CE compliant, fixed directly to either the joists or firings using recommended fasteners.
- Falls: Where provided, the falls/cross-falls should be a minimum of 1:60. No deflections or back-falls present if the deck is designed to achieve a 0° level finished surface.
- Preliminary work: Complete including:
 - Formation of upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints.
 - Fixing of battens, fillets and anchoring plugs/strips.
- Moisture content and stability of substrate: Must not impair roof integrity.
- Preparation: All such items to be rectified as necessary to eliminate the possibility of puncturing the new waterproofing system.
- Taping of board joints: Tape centrally over board joints with 200mm wide strips of taping strip. These can be retained temporarily in place with clout nails, prior to the self adhesive vapour barrier being laid.
- Priming: Prime all areas receiving the new waterproofing with fast drying bitumen primer, as clause 320A, and ensure this is thoroughly dry before applying the new waterproofing.

640 FIXING TIMBER TRIMS

- Fasteners: type/length appropriate and suitable to particular deck substrate.
- Fixing centres (maximum): 500 mm.

WATERPROOF COVERINGS/ ACCESSORIES

710 LAYING COLD APPLIED LIQUID WATERPROOFING GENERALLY

1.0 Preliminaries

- 1.1 All materials used are to be installed strictly in accordance with PremTec and Krypton Chemicals' installation instructions, BS 6229:2003, BS8217:2005, BS 8747:2007, BS 8000 Part 4: 1989, and all other relevant Standards and Industry Codes of Practice.
- 1.2 Installation is only to be carried out by a qualified and reputable contractor from the PremTec recommended list, whose operatives are experienced, skilled and competent at laying flat roof membranes including cold-applied liquid plastic roof membranes.
- 1.3 The Contractor is responsible to:
 - a) Ensure that all necessary access equipment, scaffolding, handrails, materials storage and off-loading facilities, hoisting etc is provided to conform with current health and safety regulations, CDM requirements and to the satisfaction of the Contracts Administrator.
 - b) Liaise with other trades to ensure the integrity and serviceability of the flat roof system and all associated details.
 - c) Organise installation, re-installation or moving of any plant, services or M & E equipment where necessary by a qualified engineer.

- d) Agree method of work statement, programme of works and health and safety plan conforming to current legislation before commencement of works.
- 1.4 Materials are to be stored in accordance with the manufacturer's instructions, in clean, dry conditions and the site is to be maintained in a clean and tidy condition at all times. Rubbish is to be cleared from the roof as it arises and good tidiness and discipline maintained.
- 1.5 The waterproofing is to be given adequate protection from following trades and is not to be subjected to excessive traffic or used for storage of other building materials. Where this is unavoidable suitable protection should be provided to ensure the waterproofing is not punctured or damaged in any way.
- 1.6 PremTec and Krypton Chemicals recommends that a regular maintenance inspection takes place following completion of the roof in accordance with PremTec's maintenance guidelines and terms of the guarantee.
- 1.7 The information contained within this proposed specification is correct to the best of PremTec's knowledge and based on the information available at the time of writing. The specifier or customer is to ensure the specification meets their expected standards and complies current regulations and legislation, including provision of permanent safe access for maintenance etc. PremTec cannot be held responsible for faults in the specification due to insufficient information, unknown site conditions or changes to the building, faulty workmanship by others, the performance of materials not supplied by PremTec or incorrect specification where the document has not been checked and approved by PremTec.
- 1.8 All Intellectual Property in the specifications, drawings and calculations or any other material supplied, created and/or developed by PremTec and Krypton Chemicals in any form, remain vested with PremTec. No part of this specification or associated drawings, calculations and other material may be copied, reproduced, scanned or stored, whether in part or in whole, in any form or by any means, by or given to any third party not directly involved in the project, without the express permission of PremTec. Contractors are recommended based on PremTec's current knowledge and experience. Any company entering into contractual agreements with a contractor from the list must satisfy themselves of the suitability of the contractor for the project, financially, in terms of insurance cover and any other essential requirements.
- 1.9 It remains the responsibility of the contractor to carry out their own pre-hotworks / fire hazard checks in accordance with the Safe2Torch guidelines (if any hotworks are involved). To any areas where there is a fire risk identified on site that has not been identified in this specification or where access could not be gained to adequately survey, the specification automatically reverts to the Safe2Torch guidelines, methods and the Safe2Torch specification.
- 1.10 Any party / compartment walls require non-combustible materials to be placed either side of the wall for a minimum of 1500mm either side in accordance with Approved Document B. This specification contains combustible insulation materials and assumes there are none of these wall / roof junctions and it is the responsibility of the contractor & client to advise if there are any such junctions in the structure. If so, this specification is subject to change
- 2.0 Preparation**
- 2.1 New Concrete deck
Note: It remains the responsibility of the contractor to carry out all areas are subject to adhesion tests after strip-up to ensure the suitability of the primers and liquid system.
- 2.2 Ensure the roof is free from all dirt, dust, loose debris and contaminants.

3.0 Primer

- 3.1 To main Field Areas - Apply Impermax GC Primer, to activate the surface. Apply it at a rate of 200-300g/m² with a brush or roller and allow to fully dry.

4.0 Base Coat, Reinforcement & Top Coat

4.1 Base-Coat

- 4.2 Open tin of Impermax QC Dark Grey Cold-Applied Liquid, and mix thoroughly with a wooden batten, ensuring that no bubbles are introduced to the liquid (bubbles cause holes in the membrane once it cures). Install at a coverage rate of 1kg/m².

4.3 Reinforcement Fleece

- 4.4 Whilst the base-coat is still wet, embed a layer of Impermax 150g/m² Glass Fibre Reinforcement Fleece into the base-coat and ensure that the fibres are completely embedded with no fibres left uncovered. Roll in with metal spiked rollers to ensure complete coverage. Ensure no areas of glass fibres have "wicked". (Wicking occurs when the fibres are raised up. Areas that have wicked fibres need to be left to dry, cut-out then another patch of reinforcement fleece and another coating of base-coat are to be applied)

4.5 Top-Coat

- 4.6 Open tin of Impermax QC Dark Grey Cold-Applied Liquid, and mix thoroughly with a wooden batten, ensuring that no bubbles are introduced to the liquid (bubbles cause holes in the membrane once it cures). Install at a coverage rate of 1kg/m².

5.0 Insulation

- 5.1 To main field areas install 500gms per m² Premtec's separation fleece loose laid

- 5.2 Upon installation of separation layer, install TR XPS 200mm board achieving u Value of 0.18 W/m²k

COMPLETION

910A INSPECTION

- Interim and final roof inspections: Strictly in accordance with the manufacturer's requirements for guarantee.
- Notification: It is the responsibility of the approved contractor to advise PremTec Waterproofing Technologies Ltd when the roof is ready for Final Inspection.
- Other requirements: Please also refer to preliminaries / general conditions.

940 COMPLETION

- Roof areas: Clean.
- Outlets: Clear.
- Work necessary to provide a weather tight finish: Complete.
- Storage of materials on finished surface: Not permitted.
- Completed membrane: Do not damage. Protect from chemicals, traffic and adjacent or high level working.