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| Please find below our current Masterspec Specification for Viking Dec-K-ing.Our focus is to ensure that you have the right information and technical support required to make specifying our roofing and waterproofing solutions easy.If you require any of our CAD details you can find them on our website [www.vikingroofspec.co.nz](http://www.vikingroofspec.co.nz)For any further support please do not hesitate to contact us on 0800 729 799.Kind Regards,The team at Viking RoofspecVK_ROFS_4C_SL_TCD T: 0800 729 799 F: 0800 729 788info@vikingroofspec.co.nz[www.vikingroofspec.co.nz](http://www.vikingroofspec.co.nz) |

**4432V VIKING DEC-K-ING WATERPROOFING MEMBRANE**

**1. GENERAL**

 *If you have pre-customised this work section using the "questions and answers" provided as part of the downloading process, it may be necessary to amend some clauses to suit the final project-specific version.*

 *The section must still be checked and customised to suit the project being specified, by removing any other irrelevant details and adding project-specific details and selections.*

 This section relates to Viking **Dec-K-ing** reinforced PVC waterproofing membrane:

 - for use on pedestrian decks and balconies

 - installed as an adhered single ply system.

 *Modify or extend the above description to suit the project being specified. For specific technical information refer to Viking Roofspec.*

1.1 RELATED WORK

 Refer to ~ for ~.

 *Refer to 7411 RAINWATER SPOUTING SYSTEMS for rainwater disposal.*

 *Include cross references to other sections where these contain related work. Delete if not required.*

1.2 ABBREVIATIONS AND DEFINITIONS

Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

 The following abbreviations apply specifically to this section:

 PVC Polyvinyl chloride

 **Documents**

1.3 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

 [NZBC D1](http://www.masterspec.co.nz/redirect.aspx?pl=225)/VM1 Access routes

 [NZBC D1](http://www.masterspec.co.nz/redirect.aspx?pl=225)/AS1 Access routes

 [NZBC E2](http://www.masterspec.co.nz/redirect.aspx?pl=347) External moisture

 [AS/NZS 2269.0](http://www.masterspec.co.nz/redirect.aspx?pl=1046) Plywood - Structural - Specifications

 *Delete from the DOCUMENTS clause any document not cited. List any additional cited documents.*

 *The following are related documents and if referred to in the work section need to be added to the list of DOCUMENTS.*

 *RELATED DOCUMENTS*

 *Refer to the following related documents when preparing this section:*

[*NZBC B1*](http://www.masterspec.co.nz/redirect.aspx?pl=222)*/AS1 Structure*

[*NZBC B2*](http://www.masterspec.co.nz/redirect.aspx?pl=223)*/AS1 Durability*

[*NZBC E1*](http://www.masterspec.co.nz/redirect.aspx?pl=227)*//AS1 Surface water, 5.0 Roof gutters*

[*NZBC F2*](http://www.masterspec.co.nz/redirect.aspx?pl=236)*/AS1 Hazardous building materials*

[*AS/NZS 1604.3*](http://www.masterspec.co.nz/redirect.aspx?pl=1183) *Specification for preservative treatment - plywood*

 *NZS 2908 Cellulose - cement products - Flat sheets*

[*NZS 3101*](http://www.masterspec.co.nz/redirect.aspx?pl=294) *Concrete structures standard - the design of concrete structures*

[*NZS 3109*](http://www.masterspec.co.nz/redirect.aspx?pl=295) *Concrete construction*

[*NZS 3604*](http://www.masterspec.co.nz/redirect.aspx?pl=301) *Timber-framed buildings*

 *BRANZ publication Good practice guide to membrane roofing*

 *BRANZ publication Selecting roof claddings*

 *Check with Viking Roofspec to ensure that you have the most up to date information.*

1.4 MANUFACTURER/SUPPLIER DOCUMENTS

 Manufacturer's and supplier's documents relating to work in this section are:

 Viking Waterproofing Membrane Systems manual

 Viking **Dec-K-ing** Plywood Substrate Checklist

 Viking Concrete Substrate Checklist

 Viking **Dec-K-ing** Standard Details

 Viking **Dec-K-ing** Applicator Manual

 [BRANZ Appraisal 411](http://www.masterspec.co.nz/redirect.aspx?pl=140) - **Dec-K-ing** PVC Waterproofing Membrane

 Copies of the above literature are available from Viking Roofspec

 Web: [www.vikingroofspec.co.nz](http://www.vikingroofspec.co.nz/)

 Email: info@Vikingroofspec.co.nz

 Telephone: 0800 729 799

 Facsimile: 0800 729 788

 *It is important to ensure that all personnel on site have access to accurate, up to date technical information on the many products, materials and equipment used on a project. In most cases individual products are not used in isolation, but form part of a building process. Also a particular manufacturer's and/or supplier's requirements for handling, storage, preparation, installation, finishing and protection of their product can vary from what might be considered the norm. Access to technical information can help overcome this potential problem.*

 **Warranties**

1.5 WARRANTY - MANUFACTURER/SUPPLIER

 Provide a material manufacturer/supplier warranty:

 20 years: For Viking **Dec-K-ing** membrane

- Provide this warranty on the Viking **Dec-K-ing** Product Warranty PVC Membrane standard form.

 - Commence the warranty from the date of completion of fixing.

 Refer to the section 1237 WARRANTIES for additional requirements.

 *Modify or expand the clause to suit project or manufacturer/supplier requirements.*

1.6 WARRANTY - INSTALLER/APPLICATOR

 Provide an installer/applicator warranty:

5 years: For the fixing of **Dec-K-ing** membrane when installed by Viking licensed approved applicator

- Provide this warranty in the Viking **Dec-K-ing** Product Warranty PVC Membrane standard form.

 - Commence the warranty from the date of completion of fixing.

 Refer to the section 1237 WARRANTIES for additional requirements.

 *Modify or expand the clause to suit project requirements.*

1.7 WARRANTY - VIKING FULL SYSTEM WARRANTY

 *\* Available only upon application\**

 Provide a Viking Full System Warranty for materials and installation:

 20 years: For Viking **Dec-K-ing** Membrane

 - Apply for when the project consists of over 80m² of membrane.

 - Approved Applicator must hold a current Stage 3 Viking Roofspec Licence.

 - Provide this warranty on the Viking Full System Warranty job completion form.

 - Commence the warranty from the date of completion of fixing.

 *Modify or expand the clause to suit project requirements.*

 **Requirements**

1.8 QUALIFICATIONS

Installation of the membrane to be carried out by Viking Approved Applicators. Installation of substrates must be completed by suitably qualified persons in accordance with instructions given in Manufacturers Technical Literature.

1.9 NO SUBSTITUTIONS

Substitutions are not permitted to any specified Viking **Dec-K-ing** membrane waterproofing materials, or associated products, components or accessories.

 **Performance**

1.10 TEST

Flood test decks and gutters with a minimum 50mm depth of water for 24 hours. Make good any lack of watertightness when the surface is completely dry.

1.11 PERFORMANCE

Accept responsibility for the weather-tight performance of the completed **Dec-K-ing** system, including all penetrations and junctions. All details to comply with [NZBC,](http://www.masterspec.co.nz/redirect.aspx?pl=347) and Viking Roofspec specifications and Standard Details.

1.12 SLIP RESISTANCE FOR ACCESS ROUTES

**Dec-K-ing** membrane has a coefficient of friction (µ) of 0.6 to [NZBC D1](http://www.masterspec.co.nz/redirect.aspx?pl=225)/VM1 when used on pedestrian decks and balconies with slopes of approximately 9° (1:6 slope approximately).

**Dec-K-ing** membrane to be used on ramps or pedestrian decks on access routes and accessible routes up to the slopes specified in [NZBC D1](http://www.masterspec.co.nz/redirect.aspx?pl=225)/AS1, table 2, with traction bars.

**2. PRODUCTS**

 **Materials**

2.1 **DEC-K-ING** WATERPROOFING MEMBRANE

PVC waterproof sheet membrane reinforced with polyester fibre. Refer to SELECTIONS for size and colour options.

 **Components**

2.2 **DEC-K-ING** ADHESIVE

 Solvent-based contact adhesive.

2.3 **DEC-K-ING** FLOOR PATCH AND FLOOR PATCH ADDITIVE

 Two part patching and filling compound. (use to max. 0.5mm thickness)

 *Used to rapidly repair rough or damaged concrete or plywood prior to the installation of floor coverings.*

2.4 **DEC-K-ING** DECK CLEANING CONDITIONER

 Compatible cleaning agent. Do not use any other commercial cleaning products.

 **Accessories**

 *Used to protect areas of roof or deck exposed to frequent foot traffic.*

2.5 **DEC-K-ING** SCUPPER OUTLETS

 PVC scupper. 90mm x 60mm outlet.

 *Available in a variety of shapes and sizes to suit pipes from 60mm to 200mm.*

2.6 CLAMP RING ROOF DRAINS OR OVERFLOWS

 80mm, 100mm or 150mm clamp sealed drains and overflows

* 1. **DEC-K-ING** FASTENING BAR

 Aluminium bar with self sealing backing and fixings for deck edge terminations.

* 1. **DEC-K-ING** PVC DRIP EDGE

 Galvanised metal drip edge coated with PVC to allow welding to membrane.

 *Used for maintaining completed Dec-K-ing PVC waterproofing membrane decking.*

**3. EXECUTION**

 **Conditions**

3.1 GENERALLY

All work and materials to comply with current Viking **Dec-K-ing** technical literature and standard details; and NZBC.

3.2 STORAGE

Provide dry storage for all products. Stack off the ground on a level surface with accessories. Rolls to be laid flat do not stack on end.

3.3 WEATHER

 Lay **Dec-K-ing** membrane in fair weather, with ambient air temperature no less than 7°C.

 **Application - preparation**

 *Timber framing systems to comply with* [*NZS 3604*](http://www.masterspec.co.nz/redirect.aspx?pl=301)*, or where specific engineering design is used the framing to be of at least equivalent stiffness to the framing provisions of* [*NZS 3604*](http://www.masterspec.co.nz/redirect.aspx?pl=301)*, or comply with* [*AS/NZS 1170*](http://www.masterspec.co.nz/redirect.aspx?pl=268)*. Framing must be provided so that the maximum span of the substrate as specified by the substrate manufacturer is met and all sheet edges are fully supported.*

3.4 PRELIMINARY WORK

Ensure that preliminary work, including formation of falls, flashing rebates, grooves, ducts, provision of battens and fixing of outlets to levels, is complete and properly constructed to enable the system to work as intended. Route substrate approximately 1.3mm for flush laps if specified. *Check with the BCA to confirm requirements in addition to the NZBC.*The substrate to be dry, clean and stable before installation commences.

3.5 ACCEPTANCE OF SUBSTRATE

Confirm that the substrate, including outlets and projections, meets design specification, and Viking Roofspec conditions. Ensure the fall complies with [NZBC E2](http://www.masterspec.co.nz/redirect.aspx?pl=347).

3.6 CONCRETE SUBSTRATE

Install to requirements of current Viking Roofspec Membrane Concrete Substrate Checklist. Ensure concrete substrate has been allowed to cure for at least 28 days before commencing application. If using a curing compound or sealer, ensure compatibility with Viking membrane components prior to installation and follow the manufacturer’s instructions. The relative humidity of concrete substrates must be 75% or less before membrane application. Prepare the surface to leave smooth, clean, dry and free of debris.

 *Contact Viking Roofspec on 0800 729 799 for recommended options.*

3.7 PLYWOOD SUBSTRATE

Install to requirements of current Viking Roofspec **Dec-K-ing** Plywood Substrate Checklist. Plywood to be;

 - a minimum of 17mm thick and complying with [AS/NZS 2269.0](http://www.masterspec.co.nz/redirect.aspx?pl=1046)

 - minimum CD structural grade with the sanded C side upwards

 - H3.2 treated (CCA) and kiln dried.

Lay plywood with staggered joints (brick bond) with all edges of the sheets fully supported. Do not use tongue and groove plywood.

Butt join all sheets. Applying a continuous bead of Gorilla Grip Express expanding adhesive on all supports below ply and to all ply joins.

Fix with 10 gauge x 50mm stainless steel countersunk head screws. Fix at 50mm from the corners, 150mm centres on edges and 200mm centres on intermediate supports.

 No timber corner fillets are to be used.

Chamfer all external edges with a minimum radius of 5mm where the membrane is to be wrapped over.

 Provide falls to a minimum of those stated in [NZBC E2](http://www.masterspec.co.nz/redirect.aspx?pl=347)/AS1, 8.5.1, - 1:30 for roofs, 1:40

 for decks and 1:100 for gutters.

 *Viking Roofspec recommend that the minimum slope for all Dec-K-ing membranes be 1.5° (2.5%) to provide adequate drainage of water.*

 *NOTE: A deck with tiles over a membrane is an alternative solution; check with the BCA to confirm requirements in addition to the NZBC.*

 **Application - laying**

 *Refer to Viking Roofspec on* [*www.vikingroofspec.co.nz*](http://www.vikingroofspec.co.nz)*, for Dec-K-ing PVC waterproofing membrane technical requirements. Venting of joist space is important.*

3.8 GENERAL

Install to current application standards as detailed in Viking Roofspec Technical Literature and Viking **Dec-K-ing** Applicators Manual.

 *Modify to suit project substrate specified.*

3.9 PRIME

 Apply a single layer of adhesive over the entire surface which is to be covered with

 **Dec-K-ing** and allow to dry. Coverage should be approximately 2m²/L.

3.10 RELAX AND CHECK

Unroll **Dec-K-ing** membrane and lay onto the prepared substrate. Allow to relax. Check the membrane to ensure no damage, correctness of cuts and colour etc.

3.11 INSTALL MEMBRANE

Install **Dec-K-ing** membrane by folding back half the sheet at a time. Apply an even layer of **Dec-K-ing** Contact Adhesive over the substrate and the PVC membrane, using a medium nap roller. Allow the adhesive to flash off until tacky. Fold the sheet back to adhere. Work sheet down by hand to remove bubbles or creases. Roll with 20kg roller on completion of each sheet. Do not use a spatula.

3.12 JOINTS

Position sheets to overlap joints a minimum of 20mm at the ends and sides. Ensure laps are directed to shed water, with upper sheet on top of lap, in the direction of the fall. Allow minimum of 70mm of **Dec-K-ing** membrane at deck edges and 150mm to turn up wall or upstands.

3.13 WELD JOINT SEAMS

Weld all details and seams using a hot air welder to provide a minimum 20mm sealed weld.

3.14 PENETRATIONS & JUNCTIONS

Form and finish upstands, downturns, penetrations and outlets to conform to current Viking Roofspec Standard Details. Confirm installation of all required flashings and terminations, to leave membrane watertight upon project completion.

3.15 VENTILATION –DECK CAVITIES

 Provide adequate ventilation per E2/AS1.

3.15 INSPECT

 Check all welds prior to completion and repair if necessary.

 *Flush seam option available on plywood decks.*

 **Finishing**

3.16 ACCEPTANCE

 Protect and maintain membrane until completion of the contract works.

 **Completion**

3.17 CLEAN UP

 Clean up as the work proceeds.

3.18 LEAVE

 Leave work to the standard required by following procedures.

3.19 REMOVE

 Remove debris, unused materials and elements from the site.

**4. SELECTIONS**

 Substitutions are not permitted to the following, unless stated otherwise.

 *SELECTIONS is for providing details of the actual selections to be included in the contract works including model numbers, colours and other information necessary to ensure that the correct materials are supplied and installed*

4.1 PVC WATERPROOFING MEMBRANE

 Location: ~

 Substrate: ~

 Brand/Product: Viking **Dec-K-ing**

 Dimensions: 1.5mm thick x 1.8 metre width (supplied to required length up to 115m)

 Colour: ~

 Accessories: ~

 Laps: Flush (routed substrate) or proud