



SPECIFICATION:

Jaydex Reinforced Acrylic / Polyurethane Coated Membrane System on a Concrete Vehicle Deck

VEHICLE DECK SOLUTION

AQUA103C

AUGUST 2010

INTRODUCTION

The **Aquadex/Novathane** lightweight system described in this specification has been specially designed for use as a durable waterproof membrane/topping system for suspended concrete vehicle decks usually where there are structural limitations on the deck, supports. The **Aquadex** is a proprietary high build acrylic with the **Novathane** providing a very hard wearing polyurethane top coat.

The **Aquadex/Novathane** membrane system incorporates C.S.M. reinforcement to accommodate vehicle load stresses. Extra protection against vehicle contamination is provided by a top coat of **Novathane**.

DESIGNATION

Responsibility must be designated between the main contractor and subtrades for all work in this section at the time of pricing.

SUBSTRATE

Concrete shall be finished to NZS3114:1980 U3. Rest of the Concrete Substrate Prep.

PREPARATION

Uneven surfaces shall be stoned or flushed to prevent membrane damage.

Holed or porous surfaces shall be bagged using a sand :cement slurry gauged with **Aquamix**. Allow to cure for four (4) days.

Allowance shall be made for installation of patent mechanical expansion joints prior to application of the **Aquadex** membranes

Concrete screed to be cured a minimum of 7 days per 25mm of thickness prior to application of **Aquadex** membrane.

All surfaces to be waterproofed shall be prior water blasted to remove all construction detritus and laitance, providing a lightly profiled surface ready for **Aquadex** application.

Expansion or construction joints shall be caulked with urethane sealant and allowed to cure before **Aquadex** membrane application.

The pH of the cured concrete to be no more than 8 otherwise acid etching is required before application of the **Aquadex**.

Mortar Fillets (50 x 50 minimum) shall be installed at transitions between horizontal vertical elements to provide a bridge for installation of the **Aquadex** membrane into upstand positions

APPLICATION

Sealer

Novapoxy WB is applied by brush at 8-10sqm/litre and allowed to dry overnight (or 6 hours minimum).

Aquadex Detailing

All vertical/horizontal transitions and applicable joints in the concrete deck substrate shall have a minimum 150mm wide strip of 225 or 300gsm fibreglass chopped strand embedded in **Aquadex**

centred on the transition/joint as additional stress reinforcement. This shall be done after sealing and prior to the application of the main **Aquadex** membrane.

Aquadex Membrane

The system is comprised of **Aquadex** high build acrylic with 300gsm fibreglass chopped strand mat encapsulated into it. Apply in the sequence as set out below.

Wet first coat (body coat) **Aquadex**

300gsm chopped strand mat into wet first coat

Bodycoat – **Aquadex**

Bodycoat – **Aquadex**

Wet applications rates of 0.75 – 1.0sqm/litre will ensure correct membrane structure and thickness.

GENERAL NOTE

Expansion Movement Joints

Such designed joints exceeding 6mm in width are not to be overlaid with **Aquadex** but shall be fully sealed using an approved elastomeric sealant, which shall permanently remain exposed.

Shrinkage, Settlement Cracking and Construction Joints

Any regular cracks greater than 1mm width which appear likely to move regularly shall be saw-cut or chased to 5mm width and 8 - 15mm depth, primed and sealed with floor joint. All such sealant joints shall be overlaid after surface priming, with a 150mm strip of 300gsm chopped strand band bedded in **Aquadex**. The main **Aquadex** membrane shall be applied over these bands after a minimum of overnight drying.

Irregular Cracks

Irregular cracks for which saw cutting or chasing is impractical, shall be overlaid with **Aquadex** applied as a 100 - 150mm wide band, with 300gsm reinforcement. These bands shall be allowed to dry overnight before main **Aquadex** membrane application is undertaken.

Water Entry Points

Ensure that the **Aquadex** membrane on stub walls and bare slabs edges is fully dressed down the entire thickness of the slab to a drip edge. Allowance for this shall be made during initial design detailing.

Novathane Over Coat

Allow 48 hours curing time of the underlying **Aquadex** membrane before application of **Novathane Sealer**.

Sealer

Apply **Novapoxy WB** at 10-12 sqm/litre by brush or roller to fully cured **Aquadex** membrane surface.

Bodycoat

Novathane is applied at a spreading rate 8sqm/litre by brush or roller and allowed to dry for a minimum of 6 – 8 hours before over coating.

Topcoat

Novathane is applied at a spreading rate of 8 sqm/litre by brush or roller and allowed to dry.

General Notes

Total dry film thickness of **Novathane** – 140 microns

Body and Top Coats of **Novathane** to be same colour

Coverage rates must be strictly adhered to in order to achieve the correct film thickness

Traffic Markings

JAYDEXADDRESS: P.O. BOX 100000, NSMC, AUCKLAND, NEW ZEALAND, PHONE: (09) 4441751, FAX: (09) 444 0132 The Information contained In this Specification Is based on our experience and testing and represents the latest Information available at the date of production. No responsibility is taken for uses to which this information may be put, but we advise that where application of products and processes is in complete conformity with this specification an appropriate warranty may be available. We reserve the right to update information parameters and formulations at any time without prior notice. Visit www.jaydex.com

Traffic markings may be carried out after overnight drying using conventional road paint, after application of the **Novathane 300** wear coat. Leave for 7 days before vehicle use.

Access Ramps

Inclined access ramps are generally treated to provide more vehicular grip. Where non-skid treatment is required a **Novathane 300** slip resistant system should be detailed. Contact **Jaydex**.

HEALTH AND SAFETY

Novathane 300 produces very low isocyanate levels during application but it is recommended that a fume type respirator or facemask and safety glasses be worn during the application procedure.

INSPECTION

The completed composite system should be inspected annually so that any structural or mechanical defects, if found, may be quickly and effectively rectified.

MAINTENANCE

The **Aquadex/Novathane** membrane may be cleaned at any time by low-pressure spraying/brooming and hosing off using a weak (0.1%) neutral detergent solution. Floor sweeping machines and/or abrasive cleaning agents shall not be used.

It is recommended that the surface be inspected at 3-4 yearly intervals, and if necessary a further application of **Novathane 300** be carried out to preserve the appearance and performance of the applied membrane.

Should mechanical damage occur because of undue wear, vandalism or associated building maintenance, the **Aquadex** can be easily replaced by patching and/or resurfacing as required after simple preparation.

WARRANTY

Due to harsh end use on this membrane system in a carpark environment a warranty of ten (10) years applies provided that:

All work is carried out by an approved **Jaydex** applicator.

All work is done in accordance with this specification or any written additions or amendments there issued by **Jaydex**.

It should be noted that as the membrane surface is a wearing surface, certain provisions regarding mechanical damage and maintenance recoating may be incorporated within the warranty, depending entirely upon the declared and intended use of the vehicle deck.