

Nuraply 3PC carpark membrane produces a watertight surface that, underneath asphalt, and masonry can handle the demands vehicular traffic.

Nuraply 3PC consists of an impregnated carrier with combination of polyester and glassfleece (280 g/m<sup>2</sup> for 5 mm thick), covered at the bottom side with flexible polymer bitumen.

The finish of the top surface of this membrane, talcum, admits direct application of road asphalt at a temperature of max. 160 °C - 200 °C or mastic asphalt with a temperature of approx 250 °C.

The positioning of the carrier close to the upper surface of the membrane ensures a thorough adhesion between membrane and asphalt.

Concrete toppings require a layer of heavy duty polythene separating them from the Nuraply 3PC. Pavers require a cement bedding screed on top of the polythene.

#### BENEFITS:

- Robust and durable system solution
- A complete 20-year product warranty
- CodeMark ensures certainty with building consents



## BENEFITS

### BUILDING CODE VERIFICATION

CodeMark is a product certification system administered by the Ministry of Business Innovation and Employment (MBIE) which must be accepted by Councils so long as the product or system is designed and used within the scope of the CodeMark certificate.

We are happy to work with clients on any building consent issues, especially if something outside the scope of usual work is planned.

### WARRANTY

Nuralite warrants Nuraply 3PC against materials defects for 20 years from the date of installation. The warranty must be applied for at the completion of the job.

The workmanship is covered by a separate workmanship warranty issued by the applicator. Nuralite will inspect the completed job if requested.

### APPLICATORS

All of our authorized applicators have been trained at our premises followed by on-site training. Most applicators have been working with our systems for many years. We work closely with applicators to ensure quality standards are maintained.

# Nuraply 3PC

### »» NURPLY 3PC MEMBRANE on concrete substrate



**THINGS TO CONSIDER**

Ensure a Membrane Project Sign-off form has been completed by the main contractor (builder) as a sign that the membrane has been correctly installed. The overlay installer will be responsible for damage once the Project Sign-off form has been completed.

The topping design and installation is the responsibility of others and so is not part of this Codemark.

**ASPHALT OVERLAY**

The asphalt overlay should be placed as soon as possible after application of the Nuraply 3PC and prior to any trafficable use. The parties should inspect the applied membrane prior to laying of asphalt to ensure there is no mechanical damage or other isolated moisture related blisters. Rectify any of those issues before the asphalt application commences.

Only asphalt delivery equipment should be permitted on the membrane prior to placement of the asphalt. While flat tracked paving equipment is preferred, either flat tracked or pneumatic tire equipment may be used. Equipment should be inspected prior to use for burrs, stones or sharp projections on tracks which could damage the membrane.

A minimum of 50 mm compacted overlay is recommended. Thicker overlays are recommended for heavy traffic areas, loading zones or fire truck access points. Care should be taken to minimise the possibility of pavement movement on areas with more than a 5% grade. Curved ramps can put particular stress on the paving system as cars are turning under load.

**CONCRETE OVERLAY**

A slip layer of heavy duty black polyethene must be installed, with laps taped, so that the concrete cannot bond to the Nuraply 3PC membrane.

Failure to do this can compromise the system as the concrete curing will stress the underlying membrane.

An engineer must specify the depth and reinforcing required for the concrete pour. The main contractor (builder) must ensure the polyethene and Nuraply 3PC is undamaged before pouring the concrete.

Nuraply  
3PC

## TECHNICAL INFORMATION

A comprehensive set of design details and specifications are available at [www.nuralite.co.nz](http://www.nuralite.co.nz)  
Nuralite technical advisors are all very experienced and willing to help either on the phone, in your office or on site. Call 09 579 2046 or 0800 Nuralite (0800 687254).

## DESCRIPTION – NURAPLY 3PC

Nuraply 3PC consists of an impregnated carrier with combination of polyester and glassfleece (280 g/m<sup>2</sup> for 5mm thick), covered at the bottom side with flexible polymer bitumen.

## COMPONENTS

- Nuraflex No10
- Nuralite Bitumen Fillets
- Nurapatch

## INSTALLATION METHOD

- Type of protection layer: both mastic asphalt and road asphalt are possible
- Type of overlay for the application: road asphalt is also possible over protection layer of mastic asphalt
- Intended use and method of application: for waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles

## »» Technical specifications (average values)

CHARACTERISTIC	TEST METHOD	UNIT	EXPRESSION OF RESULT	VALUE OR STATEMENT
Watertightness pretreatment	EN 14694	-	Pass	1000 cycles of 500 kPa on membrane without
Initial amount of mineral surface protection	EN 12039 1999 Annex B	g/m <sup>2</sup>	MDV	150g/m <sup>2</sup> ± 100 g/m <sup>2</sup>
Tensile Properties: max	-EN 12311 - 1	N/50mm	MDV± 20%	Thickness 5 mm: L 1000 N / T 900 N
Tensile properties	-EN 12311 - 1	%	MDV± 15%	Thickness 5 mm: 35%
Water absorption	EN 14223	%	MLV	≤ 0H5 A
Flexibility at low temp	EN 1109	°C	MLV	initial ≤ - 15°C
Flow resistance at elevated temperature	EN 1110	°C	MLV I	initial ≥ 130°C
Dimensional stability / 24 hr at 80°C	EN 1107-1	%	MLV	EN 1107 - 1: ≤0.2%
Dimensional stability at elevated temp / 1 hr at 160°C	EN 1107-1 + Annex B of EN	%	MLV	≥ - 0,5%
Thermal ageing by long-term exposure to elevated temperature; 12 weeks @ 70°C	EN 1296	EN 1109 EN 1110		
Bond strength on concrete	EN 13596	N/mm <sup>2</sup>	MLV	at 10°C: ≥ 1N/mm <sup>2</sup>
Bond strength on system concrete + membrane + protection layer	EN 13596	N/mm <sup>2</sup>	MLV	With mastic asphalt at 23°C: ≥ 0.3 N/mm <sup>2</sup>
Bond strength on concrete + bitumen leveling layer + membrane	EN 13596	N/mm <sup>2</sup>	MLV	at 23°C: ≥ 1N/mm <sup>2</sup>
Shear strength before ageing Concrete + primer + Polybridge + asphalt	EN 13653	N/mm <sup>2</sup>	MLV	With mastic asphalt ≥0.2N/mm <sup>2</sup> with road asphalt ≥0.3N/mm <sup>2</sup>
Bond strength after ageing 12 w @ 70°C on system concrete + bitumen levelling layer + membrane + protection layer	EN 1296 + EN 13596	N/mm <sup>2</sup>	MLV	With mastic asphalt ≥ 1.00 N/mm <sup>2</sup>
Crack bridging ability	EN 14224 or Annex E of this European Standard	°C	Pass test temp	- 10 °C

## TECHNICAL INFO

CHARACTERISTIC	TEST METHOD	UNIT	EXPRESSION OF RESULT	VALUE OR STATEMENT
<b>Compatibility by heat conditioning 91 days @ 50°C on system concrete + membrane + protection layer</b>	EN 14691 + EN 13653	% of initial value	MLV	With mastic asphalt: +170% With road asphalt: + 140%
<b>Compatibility after 20 freeze-thaw cycles according EN 13687-1 on system concrete + membrane + protection layer</b>	EN 13687-1 + EN 13653	% of initial value	MLV	With mastic asphalt +143%
<b>Resistance to compaction of an asphalt layer</b>	EN 14692 + EN 1928	-	Pass	Pass result

DIMENSIONS	
Thickness	5 mm
Length	10 m
Width	1 m
Surface	10 m <sup>2</sup>
Average Weight	57 kg
Fixing	Torching method

# Nuraply

# 3PC

Nuraply 3PC, and Nuraflux No10 are non-hazardous products.

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### Nuralite Waterproofing Ltd

60 D Leon Leicester Ave, Mt Wellington, Auckland 1060, New Zealand  
P 09 579 2046 F 09 579 5136 E info@nuralite.co.nz