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## FINAL REPORT

Report ID : 398266

### Report Information

**Submitting Organisation :** 00109358 : Parchem Construction Supplies Pty Ltd  
**Account :** 130335 : Parchem Construction Supplies Pty Ltd  
**AWQC Reference :** 130335-2024-CSR-4 : Prod Test: Nitomortar AP (NZ)  
**Project Reference :** PT-5675  
**Product Designation :** Fosroc Nitomortar AP (NZ) - Grey  
**Composition of Product :** 2 Part Epoxy (Grey).  
**Product Manufacturer :** Alchemis, NEW ZEALAND.  
**Use of Product :** In-Line/Epoxy Mortar or Adhesive for Bonding and Concrete Repairs.  
**Sample Selection:** As provided by the submitting organisation.  
**Testing Requested :** **AS/NZS 4020:2018 TESTING OF PRODUCTS FOR USE IN CONTACT WITH DRINKING WATER**  
**Product Type :** Composite  
**Samples :** Samples were prepared and controlled as described in Appendix A of AS/NZS 4020:2018 (Incorporating Amendment No.1)  
**Extracts :** Extracts were prepared as described in Appendix/Clause C, D, E, F, H, 6.8.  
**Project Completion Date :** 04-Feb-2025  
**Project Comment :** Sample received 10-Sep-2024, testing commenced post cure 04-Oct-2024. The product was applied (on glass slides) and cured for 7 days at 20°C prior to testing (2:1 base to hardener by volume).

PLEASE NOTE THAT THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL

THE RESULTS STATED IN THIS REPORT RELATE TO THE SAMPLE OF THE PRODUCT SUBMITTED FOR TESTING TO AS/NZS 4020:2018. ANY CHANGES IN THE MATERIAL FORMULATION, PROCESS OF MANUFACTURE, THE METHOD OF APPLICATION, OR THE SURFACE AREA-TO-VOLUME RATIO IN THE END USE, COULD AFFECT THE SUITABILITY OF THE PRODUCT FOR USE IN CONTACT WITH DRINKING WATER



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#### Notes

1. Uncertainty of Measurement is reported with a coverage factor of 2 providing approximately 95% confidence interval
2. Where a result is required to meet compliance limits the associated measurement uncertainty must be considered. Measurement uncertainty is available at <https://www.awqc.com.au/our-services/Water-quality-testing-and-analysis/measurement-uncertainty>



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## Summary of Results

APPENDIX/CLAUSE	RESULTS
C – Taste	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.
D – Appearance	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.
E – Growth of Aquatic Micro-organisms	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.
F – Cytotoxic Activity	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.
H – Metals	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.
6.8 – Organic Compounds	Passed at an exposure of 15000 mm <sup>2</sup> per Litre.

## Test Methods

Test(s) in Appendix	AWQC Test Method	NATA Accredited
C	T0320-01	Y
D	TO029-01 & TO018-01	Y
E	TO014-03	Y
F	TM-001	Y
H	TIC-006	Y

## Organic Test Methods

Test(s) in Clause	Test Method	NATA Accredited
Clause 6.8	TMZ-M36	Y
	EP239	Y
	EP132-LL	Y
	EP075C	Y
	EP075ASIM	Y



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**Laboratory Information**

Laboratory	NATA accreditation ID
Product Testing	1115
Australian Laboratory Services Pty Ltd - New South Wales	825,992
Inorganic Chemistry - Physical	1115
Protozoology	1115
Organic Chemistry	1115
Inorganic Chemistry - Metals	1115
Inorganic Chemistry - Waste Water	1115

**Summary Comment :** The AWQC is not NATA accredited for the following tests: Nitrosamines, Phenols, Phthalate Esters and Polycyclic Aromatic Hydrocarbons. These tests are subcontracted to testing facilities that are NATA accredited for these analyses.



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### CLAUSE 6.2 Taste

**Sample Description** The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

**Extraction Temperature** 20°C ± 2°C.

**Test Method** Taste (Appendix C)

**Test Information**

**Scaling Factor** Not applied.

**Results** Not detected (sample and controls).

**Evaluation** The product passed the requirements of clause 6.2 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 2.

**Test Comment** Not applicable.

Peter Christopoulos  
APPROVED SIGNATORY



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### CLAUSE 6.3 Appearance

**Sample Description** The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

**Extraction Temperature** 20°C ± 2°C.

**Test Method** Appearance (Appendix D)

**Scaling Factor** Not applied.

#### Results

	<u>Test (- Blank)</u>	<u>Maximum Allowed</u>	<u>Units</u>
Colour	<1	5	HU
Turbidity	<0.1	0.5	NTU

**Evaluation** The product passed the requirements of clause 6.3 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 1.

**Test Comment** Not applicable.

Andrew Ford  
APPROVED SIGNATORY



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**CLAUSE 6.4 Growth of Aquatic Micro-organisms**

**Sample Description** The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of test water.

**Test Method** Growth of Aquatic Micro-organisms (Appendix E)

**Inoculum** The volume of the inoculum was 100 mL

**Scaling Factor** Not applied.

<b>Results</b>	Mean Dissolved Oxygen	Control	7.6 mg/L
	Mean Dissolved Oxygen Difference	Positive Reference	4.7 mg/L
		Negative Reference	0.1 mg/L
		Test	0.40 mg/L

**Evaluation** The product passed the requirements of clause 6.4 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 1.

**Test Comment** The positive reference value is outside the specified range in E10.2, however, the value indicates the organic substance(paraffin) still supported microbial growth, therefore is positive and the test value is well below the positive reference value.

Thuy Diep  
APPROVED SIGNATORY



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### CLAUSE 6.5 Cytotoxic Activity

**Sample Description** The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

**Extraction Temperature** 20°C ± 2°C.

**Test Method** Cytotoxic Activity (Appendix F)

**Scaling Factor** Not applied.

#### Results

24 HR	Non-cytotoxic response, healthy cell morphology with <30% cell death
48 HR	Non-cytotoxic response, healthy cell morphology with <30% cell death
72 HR	Non-cytotoxic response, healthy cell morphology with <30% cell death

**Blank Control Results** Blank; non-cytotoxic response, healthy cell morphology with <30% cell death

**Positive Control Results** Positive control; Cytotoxic response, unhealthy cell morphology with >70% cell death

The test extracts and blank extracts were used to prepare nutrient growth medium and subsequently used to grow a cell line (ATCC Number CCL 81) in the analysis. In addition zinc sulphate (0.4 mmol) was used for the positive control in the analysis.

**Evaluation** The product passed the requirements of clause 6.5 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 1.

**Test Comment** Not applicable.

Mira Maric  
APPROVED SIGNATORY



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### CLAUSE 6.7

### Metals

#### Sample Description

The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

#### Extraction Temperature

20°C ± 2°C.

#### Test Method

Metals (Appendix H)

#### Scaling Factor

Not applied.

#### Method of Analysis

Concentration of the metals described in Table 2 of the AS/NZS 4020:2018 are determined as follows:

Aluminium, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium and Silver by Inductively Coupled Plasma Mass Spectrometry.

Results	Limit of Reporting mg/L	Blank mg/L	Test 1 mg/L	Test 2 mg/L	Max Allowed mg/L
<b>Final Extract</b>					
Aluminium	0.001	0.007	0.009	0.006	0.2
Antimony	0.0003	<0.0003	<0.0003	<0.0003	0.003
Arsenic	0.00006	<0.00006	<0.00006	<0.00006	0.01
Barium	0.0003	0.0003	<0.0003	<0.0003	0.7
Boron	0.020	<0.020	0.027	<0.020	1.4
Cadmium	0.0001	<0.0001	<0.0001	<0.0001	0.002
Chromium	0.0001	0.0001	<0.0001	0.0001	0.05
Copper	0.0001	0.0011	<0.0001	<0.0001	2.0
Iron	0.0005	<0.0005	<0.0005	<0.0005	0.3
Lead	0.0001	<0.0001	<0.0001	<0.0001	0.01
Manganese	0.0001	<0.0001	<0.0001	<0.0001	0.1
Mercury	0.00003	<0.00003	<0.00003	<0.00003	0.001
Molybdenum	0.0001	<0.0001	<0.0001	<0.0001	0.05
Nickel	0.0002	<0.0002	<0.0002	<0.0002	0.02
Selenium	0.0001	<0.0001	<0.0001	<0.0001	0.01
Silver	0.00002	<0.00002	<0.00002	<0.00002	0.1

**Evaluation** The product passed the requirements of clause 6.7 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 1.

**Test Comment** Not applicable.

Dzung Bui  
APPROVED SIGNATORY



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### CLAUSE 6.8 Organic Compounds

**Sample Description** The sample consisted of two panels with dimensions 75 mm x 100 mm (coated to one side each) providing a surface area of approximately 15000 mm<sup>2</sup> per Litre. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

**Extraction Temperature** 20°C ± 2°C.

**Test Method** Organic Compounds (Clause 6.8). The maximum allowed (Max Allowed) values are taken from the Australian Drinking Water Guidelines and Drinking-water Standards for New Zealand. Please note, some reported compounds have no guideline value.

**Scaling Factor** Not applied.

#### Results

##### Organic Compound

Nitrosamines	Blank µg/L	Test µg/L	Max Allowed
!External Lab Report No.	ES2434209	ES2434209	
N-Nitrosodimethylamine (NDMA)	<0.003	<0.003	0.1 µg/L

##### Organic Compound

Phenols	Blank µg/L	Test µg/L	Max Allowed
!External Lab Report No.	ES2434209	ES2434209	
2 4 5-trichlorophenol	<1.0	<1.0	
2 4 6-trichlorophenol	<1.0	<1.0	20 µg/L
2 4-dichlorophenol	<1.0	<1.0	200 µg/L
2 4-dimethylphenol	<1.0	<1.0	
2 6-dichlorophenol	<1.0	<1.0	
2-chlorophenol	<1.0	<1.0	300 µg/L
2-nitrophenol	<1.0	<1.0	
4-chloro-3-methylphenol	<1.0	<1.0	
m+p cresol	<2.0	<2.0	
o-cresol	<1.0	<1.0	
pentachlorophenol	<2.0	<2.0	9 µg/L
phenol	<1.0	<1.0	

##### Organic Compound

Phthalate Esters	Blank µg/L	Test µg/L	Max Allowed
!External Lab Report No.	ES2434209	ES2434209	
Bis(2-ethylhexyl) phthalate	<10	<10	10 µg/L
Butyl benzyl phthalate	<2	<2	
Di(2-ethylhexyl) adipate	<2	<2	
Diethyl phthalate	<2	<2	
Dimethyl phthalate	<2	<2	
Di-n-butyl phthalate	<2	<2	
Di-n-octyl phthalate	<2	<2	



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### Organic Compound

#### Polycyclic Aromatic Hydrocarbons

	Blank	Test	Max Allowed
	µg/L	µg/L	
!External Lab Report No.	ES2434209	ES2434209	
Acenaphthene	<0.02	<0.02	
Acenaphthylene	<0.02	<0.02	
Anthracene	<0.02	<0.02	
Benzo(a)anthracene	<0.02	<0.02	
Benzo(a)pyrene	<0.005	<0.005	0.01 µg/L
Benzo(a)pyrene TEQ	<0.005	<0.005	
Benzo(b+j)fluoranthene	<0.02	<0.02	
Benzo(ghi)perylene	<0.02	<0.02	
Benzo(k)fluoranthene	<0.02	<0.02	
Chrysene	<0.02	<0.02	
Dibenzo(a-h)anthracene	<0.02	<0.02	
Fluoranthene	<0.02	<0.02	
Fluorene	<0.02	<0.02	
Indeno(123-cd)pyrene	<0.02	<0.02	
Naphthalene	<0.02	<0.02	
PAH - Total	<0.005	<0.005	
Phenanthrene	<0.02	<0.02	
Pyrene	<0.02	<0.02	



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### Organic Compound

#### Volatile Organic Compounds GCMS

	Blank µg/L	Test µg/L	Max Allowed
1 1 1 2-Tetrachloroethane	<1	<1	
1 1 1-Trichloroethane	<1	<1	
1 1 2 2-Tetrachloroethane	<1	<1	
1 1 2-Trichloroethane	<1	<1	
1 1-Dichloropropene	<1	<1	
1 2 3-Trichlorobenzene	<1	<1	
1 2 3-Trichloropropane	<1	<1	
1 2 4-Trichlorobenzene	<1	<1	
1 2 4-Trimethylbenzene	<1	<1	
1 2-Dibromo-3-chloropropane	<1	<1	1 µg/L
1 2-Dibromoethane	<1	<1	1 µg/L
1 2-Dichlorobenzene	<1	<1	1500 µg/L
1 2-Dichloroethane	<1	<1	3 µg/L
1 2-Dichloropropane	<1	<1	
1 3 5-Trimethylbenzene	<1	<1	
1 3-Dichlorobenzene	<1	<1	
1 3-Dichloropropane	<1	<1	
1 4-Dichlorobenzene	<1	<1	40 µg/L
1,1-Dichloroethane	<1	<1	
1,1-Dichloroethene	<1	<1	30 µg/L
2,2-Dichloropropane	<1	<1	
2-Chlorotoluene	<1	<1	
4-Chlorotoluene	<1	<1	
4-Isopropyltoluene	<1	<1	
Benzene	<1	<1	1 µg/L
Bromobenzene	<1	<1	
Bromochloromethane	<1	<1	
Bromodichloromethane	<1	<1	60 µg/L
Bromoform	<1	<1	100 µg/L
Bromomethane	<4	<4	
Carbon tetrachloride	<1	<1	3 µg/L
Chlorobenzene	<1	<1	300 µg/L
Chloroethane	<4	<4	
Chloroform	<1	<1	400 µg/L
Chloromethane	<4	<4	
cis-1 3-Dichloropropene	<1	<1	
cis-1,2-Dichloroethene	<1	<1	
Dibromochloromethane	<1	<1	150 µg/L
Dibromomethane	<1	<1	
Dichlorodifluoromethane	<1	<1	
Dichloromethane	<4	<4	4 µg/L
Ethylbenzene	<1	<1	300 µg/L
Hexachlorobutadiene	<0.7	<0.7	0.7 µg/L
Isopropylbenzene	<1	<1	
m+p-Xylenes - Total	<2	<2	



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Volatile Organic Compounds GCMS	Blank µg/L	Test µg/L	Max Allowed
Naphthalene	<1	<1	
n-Butylbenzene	<1	<1	
n-Propylbenzene	<1	<1	
o-Xylene	<1	<1	
sec-Butylbenzene	<1	<1	
Styrene	<1	<1	30 µg/L
tert-Butylbenzene	<1	<1	
Tetrachloroethene	<1	<1	50 µg/L
Toluene	<1	<1	800 µg/L
Total 1 2-dichloroethene	<2	<2	60 µg/L
Total 1 3-dichloropropene	<2	<2	20 µg/L
Total Trichlorobenzene	<2	<2	30 µg/L
Total Xylene	<3	<3	600 µg/L
trans-1 3-Dichloropropene	<1	<1	
trans-1,2-Dichloroethene	<1	<1	
Trichloroethene	<1	<1	
Trichlorofluoromethane	<1	<1	
Trihalomethanes - Total	<4	<4	250 µg/L
Vinyl chloride	<0.3	<0.3	0.3 µg/L

**Evaluation** The product passed the requirements of clause 6.8 when tested at an exposure of 15000 mm<sup>2</sup> per Litre.

**Number of Samples** 1.

**Test Comment** Not applicable.

Rashed Hoque

APPROVED SIGNATORY



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## REPORT ATTACHMENT 1.

REPORT ID 398266  
PROJECT REFERENCE PT-5675  
DATE 03-02-2025

