

AUSTRALIAN WATER
QUALITY CENTRE



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Registration No 1115
Registration No 1390

Chemical Testing
Biological Testing

CERTIFICATE OF TEST

REPORT NUMBER 4007/92.629

SAMPLE REFERENCE 130068-0001

DATE 12/05/00

TRADE NAME OF PRODUCT CHEMCOAT HYDROCOAT.

COMPOSITION OF PRODUCT PART A: HYDROCOAT EPOXY RESIN BASE.
PART B: HYDROCOAT POLYAMINE BASE.

PRODUCT MANUFACTURER RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

SUBMITTING ORGANISATION RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

USE OF PRODUCT WATERPROOF SEALING MEMBRANE.

TESTING REQUESTED **AS/NZS 4020:1999**
PRODUCTS FOR USE IN CONTACT WITH DRINKING WATER

(ON SAMPLES RECEIVED AT THE AUSTRALIAN WATER QUALITY CENTRE)

SAMPLES SAMPLES WERE PREPARED AND CONTROLLED AS DESCRIBED IN APPENDIX A OF AS/NZS 4020:1999

EXTRACTS EXTRACTS WERE PREPARED AS DESCRIBED IN APPENDICES C - G AS INDICATED (NON METALLIC PRODUCTS).

TEST REPORT

COMMENCES ON PAGE 2. 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. ANY CHANGES IN THE MATERIAL FORMULATION, PROCESS MANUFACTURE, METHOD OF APPLICATION, OR SURFACE AREA-TO-VOLUME RATIO IN THE END USE, COULD AFFECT THE SUITABILITY OF THE PRODUCT FOR USE IN CONTACT WITH DRINKING WATER.

M. Marchesan

M. MARCHESAN
APPROVED SIGNATORY



HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA
POSTAL ADDRESS: PRIVATE MAIL BAG 3, SALISBURY SA 5108
TELEPHONE (08) 8259 0211 FACSIMILE (08) 8259 0228
E-MAIL: awqc@sawater.sa.gov.au
WEB: www.awqc.com.au

A BUSINESS UNIT OF THE SOUTH AUSTRALIAN WATER CORPORATION

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.2 - TASTE OF WATER EXTRACT

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Registration No. 1115)

REPORT NUMBER 4007/92.629

SAMPLE REFERENCE 130068-0001

DATE 12/05/00

TRADE NAME OF PRODUCT CHEMCOAT HYDROCOAT.

COMPOSITION OF PRODUCT PART A: HYDROCOAT EPOXY RESIN BASE.
PART B: HYDROCOAT POLYAMINE BASE.

PRODUCT MANUFACTURER RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

SUBMITTING ORGANISATION RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

USE OF PRODUCT WATERPROOF SEALING MEMBRANE.

DESCRIPTION OF SAMPLE Component A and component B were mixed at a ratio of 1.035:1.000(w/w) respectively, as instructed by the submitting organisation. After mixing the product was applied by brush, to the surface of two sandblasted glass plates with dimensions 75 mm x 100 mm. After 4 hours the procedure was repeated, this provided a total surface area of 15000 mm² with a dry film thickness of 300 µm. The panels were then cured for 7 days at 25⁰ C prior to testing.

Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

TEST METHOD AS/NZS 4020:1999 TASTE OF WATER EXTRACT
(APPENDIX C)

SCALING FACTOR Not applied.

RESULTS No tastes were detected in the final extracts prepared with chlorinated or non-chlorinated water from either the product or the control. No tastes were detected in the controls.

EVALUATION The product passed the requirements of clause 6.2 when the final extract was tested at an exposure of 15000 mm² per Litre.

NUMBER OF SAMPLES Two samples were tested.

M. Marchesan

M. MARCHESAN – SENIOR TECHNICAL OFFICER
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.3 - APPEARANCE OF WATER EXTRACT

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Registration No. 1115)

REPORT NUMBER 4007/92.629

SAMPLE REFERENCE 130068-0001

DATE 12/05/00

TRADE NAME OF PRODUCT CHEMCOAT HYDROCOAT.

COMPOSITION OF PRODUCT PART A: HYDROCOAT EPOXY RESIN BASE.
PART B: HYDROCOAT POLYAMINE BASE.

PRODUCT MANUFACTURER RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

SUBMITTING ORGANISATION RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

USE OF PRODUCT WATERPROOF SEALING MEMBRANE.

DESCRIPTION OF SAMPLE Component A and component B were mixed at a ratio of 1.035:1.000(w/w) respectively, as instructed by the submitting organisation. After mixing the product was applied by brush, to the surface of two sandblasted glass plates with dimensions 75 mm x 100 mm. After 4 hours the procedure was repeated, this provided a total surface area of 15000 mm² with a dry film thickness of 300 µm. The panels were then cured for 7 days at 25⁰ C prior to testing.

Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

TEST METHOD AS/NZS 4020:1999 APPEARANCE OF WATER EXTRACT
(APPENDIX D)


SCALING FACTOR Not applied.

RESULTS

	Test (- Blank)	Maximum Allowed	
Colour	< 1.0	5.0	HU
Turbidity	0.06	0.5	NTU

EVALUATION The product passed the requirements of clause 6.3 at an exposure of 15000 mm² per Litre.

NUMBER OF SAMPLES One sample was tested.


P.M THOMAS – SENIOR CHEMIST
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.4 - GROWTH OF AQUATIC MICRO-ORGANISMS

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Registration Nos. 1390 and 1115)

REPORT NUMBER 4007/92.629

SAMPLE REFERENCE 130068-0001

DATE 12/05/00

TRADE NAME OF PRODUCT CHEMCOAT HYDROCOAT.

COMPOSITION OF PRODUCT PART A: HYDROCOAT EPOXY RESIN BASE.
PART B: HYDROCOAT POLYAMINE BASE.

PRODUCT MANUFACTURER RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

SUBMITTING ORGANISATION RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.

USE OF PRODUCT WATERPROOF SEALING MEMBRANE.

DESCRIPTION OF SAMPLE Component A and component B were mixed at a ratio of 1.035:1.000(w/w) respectively, as instructed by the submitting organisation. After mixing the product was applied by brush, to the surface of two sandblasted glass plates with dimensions 75 mm x 100 mm. After 4 hours the procedure was repeated, this provided a total surface area of 15000 mm² with a dry film thickness of 300 µm. The panels were then cured for 7 days at 25⁰ C prior to testing.

Extracts were prepared using 1000 mL volumes of water.

TEST METHOD AS/NZS 4020:1999 GROWTH OF AQUATIC MICROORGANISMS (APPENDIX E)

INOCULUM The volume of inoculum was 100 mL.

SCALING FACTOR Not applied.

RESULTS

Mean Dissolved Oxygen	Control	7.3	mg/L
Mean Dissolved Oxygen Difference	Positive Reference	4.9	mg/L
	Negative Reference	0	mg/L
	Test	0.5	mg/L

EVALUATION The Mean Dissolved Oxygen Difference in the extracts did not exceed the maximum allowed. Accordingly the product passed the requirements of clause 6.4 at an exposure of 15000 mm² per Litre.

NUMBER OF SAMPLES One sample was tested.


P.M THOMAS - SENIOR CHEMIST
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.5 – CYTOTOXIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY	INSTITUTE OF MEDICAL AND VETERINARY SCIENCE FROME ROAD, ADELAIDE, SOUTH AUSTRALIA (NATA Registration No. 2348)	
REPORT NUMBER	4007/92.629	
SAMPLE REFERENCE	130068-0001	
DATE	12/05/00	
TRADE NAME OF PRODUCT	CHEMCOAT HYDROCOAT.	
COMPOSITION OF PRODUCT	PART A: HYDROCOAT EPOXY RESIN BASE. PART B: HYDROCOAT POLYAMINE BASE.	
PRODUCT MANUFACTURER	RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.	
SUBMITTING ORGANISATION	RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.	
USE OF PRODUCT	WATERPROOF SEALING MEMBRANE.	
DESCRIPTION OF SAMPLE	<p>Component A and component B were mixed at a ratio of 1.035:1.000(w/w) respectively, as instructed by the submitting organisation. After mixing the product was applied by brush, to the surface of two sandblasted glass plates with dimensions 75 mm x 100 mm. After 4 hours the procedure was repeated, this provided a total surface area of 15000 mm² with a dry film thickness of 300 µm. The panels were then cured for 7 days at 25⁰ C prior to testing.</p> <p>Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.</p>	
TEST METHOD	AS/NZS 4020:1999	CYTOTOXIC ACTIVITY OF WATER EXTRACT (APPENDIX F)
SCALING FACTOR	Not applied.	
RESULTS	Confluent growth of regularly-shaped cells was observed in the containers with the controls and the test extracts.	
EVALUATION	No cytotoxic response was detected, and accordingly the product passed the requirements of clause 6.5 relating to cytotoxic activity when tested at an exposure of 15000 mm ² per Litre.	
NUMBER OF SAMPLES	One sample was tested.	



A. SHARLEY – TECHNICIAN
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.6 – MUTAGENIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY	AUSTRALIAN WATER QUALITY CENTRE PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA (NATA Registration No. 1390)	
REPORT NUMBER	4007/92.629	
SAMPLE REFERENCE	130068-0001	
DATE	12/05/00	
TRADE NAME OF PRODUCT	CHEMCOAT HYDROCOAT.	
COMPOSITION OF PRODUCT	PART A: HYDROCOAT EPOXY RESIN BASE. PART B: HYDROCOAT POLYAMINE BASE.	
PRODUCT MANUFACTURER	RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.	
SUBMITTING ORGANISATION	RLA POLYMERS PTY LTD, COLCHESTER RD, KILSYTH, VIC.	
USE OF PRODUCT	WATERPROOF SEALING MEMBRANE.	
DESCRIPTION OF SAMPLE	<p>Component A and component B were mixed at a ratio of 1.035:1.000(w/w) respectively, as instructed by the submitting organisation. After mixing the product was applied by brush, to the surface of two sandblasted glass plates with dimensions 75 mm x 100 mm. After 4 hours the procedure was repeated, this provided a total surface area of 15000 mm² with a dry film thickness of 300 µm. The panels were then cured for 7 days at 25⁰ C prior to testing.</p> <p>Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.</p>	
TEST METHOD	AS/NZS 4020:1999	MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)
SCALING FACTOR	Not applied.	

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.6 – MUTAGENIC ACTIVITY OF WATER EXTRACT

REPORT NUMBER 4007/92.630
 SAMPLE REFERENCE 130069-0001
 DATE 12/05/00
 TEST METHOD AS/NZS 4020:1999 MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)

RESULTS

BACTERIAL STRAIN

NUMBER OF REVERTANTS per PLATE

	S9	Blank	Filtrate	Concentrate	Positive Controls	
					<u>NPD</u> (20ug)	<u>2-AF</u> (20ug)
<i>Salmonella typhimurium</i> TA98	-	24, 25, 19	26, 23, 26	25, 18, 23	987,756,798	
Mean ± Standard deviation		22.7 ± 3.2	25.0 ± 1.7	22.0 ± 3.6	847.0 ± 123.0	
	+	32, 26, 22	26, 18, 28	25, 18, 23	-	636,648,662
Mean ± Standard deviation		26.7 ± 5.0	24.0 ± 5.3	22.0 ± 3.6	-	648.7 ± 13.0
					<u>AZIDE</u> (1.0ug)	<u>2-AF</u> (20ug)
<i>Salmonella typhimurium</i> TA100	-	196, 210, 189	203, 186, 198	196,168,193	609,601,616	
Mean ± Standard deviation		198.3 ± 10.7	195.7 ± 8.7	185.7 ± 15.4	608.7 ± 7.5	
	+	172,176,165	156,176,166	155,176,168	-	718,653,665
Mean ± Standard deviation		171.0 ± 5.6	166.0 ± 10.0	166.3 ± 10.6	-	678.7 ± 34.6
					<u>MITOMYCIN C</u> (2ug)	
<i>Salmonella typhimurium</i> TA102	-	233,237,265	216,252,247	181,196,277	718,653,665	
Mean ± Standard deviation		245.0 ± 17.4	238.3 ± 19.5	218.0 ± 51.6	678.7 ± 34.6	
<i>Salmonella typhimurium</i> TA102	+	257,232,236	221,238,260	216,236,227		
Mean ± Standard deviation		241.7 ± 13.4	239.7 ± 19.6	226.3 ± 10.0		

COMMENTS

S9 was used as a metabolic activator. NPD (4-nitro-o-phenylenediamine), Azide, and Mitomycin C are specific positive controls for strains TA 98, TA 100 and TA 102 respectively while 2 - AF (2-aminofluorene) when used in conjunction with S9 is a positive control for both TA98 and TA100.

EVALUATION

The differences in the mean number of revertants between the blank and test extracts do not exceed two standard deviations; accordingly there is no evidence of any mutagenic effect. The product passed the requirements of clause 6.6 relating to genetic toxicity when tested at an exposure of 15000 mm² per Litre

NUMBER OF SAMPLES

One sample was tested.

M. Marchesan

**M. MARCHESAN – SENIOR TECHNICAL OFFICER
 APPROVED SIGNATORY**

END OF REPORT