

TEST REPORT

REPORT NUMBER 4007/92.1330

SAMPLE REFERENCE 130015-0015

DATE 31/07/2003

PRODUCT DESIGNATION FOSROC RENDEROC HB.

COMPOSITION OF PRODUCT CEMENTITIOUS POWDER BLEND.

PRODUCT MANUFACTURER PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.

SUBMITTING ORGANISATION PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.

USE OF PRODUCT CONCRETE REPAIR.

TESTING REQUESTED AS/NZS 4020:2002
TESTING OF PRODUCTS FOR USE IN CONTACT WITH DRINKING WATER

SAMPLES SAMPLES WERE PREPARED AND CONTROLLED AS DESCRIBED IN APPENDIX A OF AS/NZS 4020:2002

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

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 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.


M. GLASSON
APPROVED SIGNATORY

This laboratory is accredited by the National Association of Testing Authorities, Australia. The Test(s) reported herein have been performed in accordance with its terms of accreditation. This document shall not be reproduced except in full.

Accreditation No 1115 Chemical Testing
Accreditation No 1390 Biological Testing



TEST REPORT FOR AS/NZS 4020:2002

SUMMARY OF RESULTS

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SUBMITTING ORGANISATION PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.
USE OF PRODUCT CONCRETE REPAIR.

APPENDIX	RESULTS
C - TASTE OF WATER EXTRACT	Passed at an exposure of 15000 mm ² per Litre.
D - APPEARANCE OF WATER EXTRACT	Passed at an exposure of 15000 mm ² per Litre.
E - GROWTH OF AQUATIC MICRO-ORGANISMS	Passed at an exposure of 15000 mm ² per Litre.
F - CYTOTOXIC ACTIVITY OF WATER EXTRACT	Passed at an exposure of 15000 mm ² per Litre.
G - MUTAGENIC ACTIVITY OF WATER EXTRACT	Passed at an exposure of 15000 mm ² per Litre.
H - EXTRACTION OF METALS	Not applicable.

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.2 - TASTE OF WATER EXTRACT

TESTING LABORATORY	AUSTRALIAN WATER QUALITY CENTRE HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA (NATA Accreditation No. 1390)	
REPORT NUMBER	4007/92.1330	
SAMPLE REFERENCE	130015-0015	
DATE	31/07/2003	
PRODUCT DESIGNATION	FOSROC RENDEROC HB.	
COMPOSITION OF PRODUCT	CEMENTITIOUS POWDER BLEND.	
PRODUCT MANUFACTURER	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
SUBMITTING ORGANISATION	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
USE OF PRODUCT	CONCRETE REPAIR.	
DESCRIPTION OF SAMPLE	The Fosroc Renderoc HB and water were mixed at a ratio of 200g:34 mL. The mix was applied to the surface of two glass plates with dimensions 100mm x 75mm, providing a total surface area of approximately 15000 mm ² per Litre. The sample was left to cure for 24 hours. Extracts were prepared using 1000 mL volumes of water.	
CEMENTITIOUS PRODUCTS	A standard moist-curing of 28 days at 22 ⁰ C was performed in accordance with AS 1012.8. After curing, the samples were pre-conditioned with water with an aggressivity index of 12.6. Nineteen sequential soakings were performed to obtain a pH < 9.0.	
TEST METHOD	AS/NZS 4020:2002	TASTE OF WATER EXTRACT (APPENDIX C)
SCALING FACTOR	Not applied.	
RESULTS	No tastes were detected in the controls or in the extracts prepared with chlorinated and unchlorinated water.	
EVALUATION	The product passed the requirements of clause 6.2 when tested at an exposure of 15000 mm ² per Litre.	
NUMBER OF SAMPLES	Two samples were tested.	


APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.3 - APPEARANCE OF WATER EXTRACT

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Accreditation No. 1115)

REPORT NUMBER 4007/92.1330

SAMPLE REFERENCE 130015-0015

DATE 31/07/2003

PRODUCT DESIGNATION FOSROC RENDEROC HB.

COMPOSITION OF PRODUCT CEMENTITIOUS POWDER BLEND.

PRODUCT MANUFACTURER PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD,
WYONG, NSW.

SUBMITTING ORGANISATION PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD,
WYONG, NSW.

USE OF PRODUCT CONCRETE REPAIR.

DESCRIPTION OF SAMPLE The Fosroc Renderoc HB and water were mixed at a ratio of 200g:34 mL. The mix was applied to the surface of two glass plates with dimensions 100mm x 75mm, providing a total surface area of approximately 15000 mm² per Litre. The sample was left to cure for 24 hours.

Extracts were prepared using 1000 mL volumes of water.

CEMENTITIOUS PRODUCTS A standard moist-curing of 28 days at 22⁰C was performed in accordance with AS 1012.8. After curing, the samples were pre-conditioned with water with an aggressivity index of 12.6. Nineteen sequential soakings were performed to obtain a pH < 9.0.

TEST METHOD AS/NZS 4020:2002 APPEARANCE OF WATER EXTRACT
(APPENDIX D)

SCALING FACTOR Not applied.

RESULT

<u>First Extract</u>	Test (- Blank)	Maximum Allowed	
Colour	1.0	5.0	HU
Turbidity	< 0.10	0.5	NTU

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

NUMBER OF SAMPLES One sample was tested.



APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.4 - GROWTH OF AQUATIC MICRO-ORGANISMS

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Accreditation No. 1115)

REPORT NUMBER 4007/92.1330

SAMPLE REFERENCE 130015-0015

DATE 31/07/2003

PRODUCT DESIGNATION FOSROC RENDEROC HB.

COMPOSITION OF PRODUCT CEMENTITIOUS POWDER BLEND.

PRODUCT MANUFACTURER PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD,
WYONG, NSW.

SUBMITTING ORGANISATION PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD,
WYONG, NSW.

USE OF PRODUCT CONCRETE REPAIR.

DESCRIPTION OF SAMPLE The Fosroc Renderoc HB and water were mixed at a ratio of 200g:34 mL. The mix was applied to the surface of two glass plates with dimensions 100mm x 75mm, providing a total surface area of approximately 15000 mm² per Litre. The sample was left to cure for 24 hours.

Extracts were prepared using 1000 mL volumes of water.

CEMENTITIOUS PRODUCTS A standard moist-curing of 28 days at 22⁰C was performed in accordance with AS 1012.8. After curing, the samples were pre-conditioned with water with an aggressivity index of 12.6. Nineteen sequential soakings were performed to obtain a pH < 9.0.

TEST METHOD AS/NZS 4020:2002 GROWTH OF AQUATIC MICRO-ORGANISMS (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	5.5	mg/L
	Negative Reference	< 0.1	mg/L
	Test	< 0.1	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.



APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.5 – CYTOTOXIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY	AUSTRALIAN WATER QUALITY CENTRE HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA (NATA Accreditation No. 1390)	
REPORT NUMBER	4007/92.1330	
SAMPLE REFERENCE	130015-0015	
DATE	31/07/2003	
PRODUCT DESIGNATION	FOSROC RENDEROC HB.	
COMPOSITION OF PRODUCT	CEMENTITIOUS POWDER BLEND.	
PRODUCT MANUFACTURER	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
SUBMITTING ORGANISATION	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
USE OF PRODUCT	CONCRETE REPAIR.	
DESCRIPTION OF SAMPLE	The Fosroc Renderoc HB and water were mixed at a ratio of 200g:34 mL. The mix was applied to the surface of two glass plates with dimensions 100mm x 75mm, providing a total surface area of approximately 15000 mm ² per Litre. The sample was left to cure for 24 hours. Extracts were prepared using 1000 mL volumes of water.	
CEMENTITIOUS PRODUCTS	A standard moist-curing of 28 days at 22 ⁰ C was performed in accordance with AS 1012.8. After curing, the samples were pre-conditioned with water with an aggressivity index of 12.6. Nineteen sequential soakings were performed to obtain a pH < 9.0.	
TEST METHOD	AS/NZS 4020:2002	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 negative control and test extracts. Cell death was observed in the positive control.	
EVALUATION	No cytotoxic response was detected; 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.	



APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.6 – MUTAGENIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY	AUSTRALIAN WATER QUALITY CENTRE HODGSON ROAD, BOLIVAR, SOUTH AUSTRALIA (NATA Accreditation No. 1390)	
REPORT NUMBER	4007/92.1330	
SAMPLE REFERENCE	130015-0015	
DATE	31/07/2003	
PRODUCT DESIGNATION	FOSROC RENDEROC HB.	
COMPOSITION OF PRODUCT	CEMENTITIOUS POWDER BLEND.	
PRODUCT MANUFACTURER	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
SUBMITTING ORGANISATION	PARCHEM CONSTRUCTION PRODUCTS PTY LTD, LUCCA ROAD, WYONG, NSW.	
USE OF PRODUCT	CONCRETE REPAIR.	
DESCRIPTION OF SAMPLE	<p>The Fosroc Renderoc HB and water were mixed at a ratio of 200g:34 mL. The mix was applied to the surface of two glass plates with dimensions 100mm x 75mm, providing a total surface area of approximately 15000 mm² per Litre. The sample was left to cure for 24 hours.</p> <p>Extracts were prepared using 1000 mL volumes of water.</p>	
CEMENTITIOUS PRODUCTS	A standard moist-curing of 28 days at 22 ^o C was performed in accordance with AS 1012.8. After curing, the samples were pre-conditioned with water with an aggressivity index of 12.6. Nineteen sequential soakings were performed to obtain a pH < 9.0.	
TEST METHOD	AS/NZS 4020:2002	MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)
SCALING FACTOR	Not applied.	

TEST REPORT FOR AS/NZS 4020:2002

CLAUSE 6.6 – MUTAGENIC ACTIVITY OF WATER EXTRACT

REPORT NUMBER 4007/92.1330
SAMPLE REFERENCE 130015-0015
DATE 31/07/2003
TEST METHOD AS/NZS 4020:2002 MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)

RESULTS

BACTERIAL STRAIN

NUMBER OF REVERTANTS per PLATE

	S9	Blank	Sample Extract	Positive Controls	
				<u>NPD</u> (20ug)	<u>2-AF</u> (20ug)
<i>Salmonella typhimurium</i> TA98 Mean ± Standard deviation	-	14, 21, 12 15.7 ± 4.7	21, 24, 25 23.3 ± 2.1	2052,1732,1983 1922.3 ± 168.4	
	+	18, 17, 26 20.3 ± 4.9	19, 24, 24 22.3 ± 2.9	- -	127,159,375 220.3 ± 134.9
<i>Salmonella typhimurium</i> TA100 Mean ± Standard deviation	-	118,126,109 117.7 ± 8.5	109,116,109 111.3 ± 4.0	320, 332, 336 329.3 ± 8.3	
	+	98,100,93 97.0 ± 3.6	109,98,116 107.7 ± 9.1	- -	256, 236, 164 218.7 ± 48.4
<i>Salmonella typhimurium</i> TA102 Mean ± Standard deviation	-	427,380,357 388.0 ± 35.7	426,411,386 407.7 ± 20.2	1503,1372,1422 1432.3 ± 66.1	
	+	367,438,355 386.7 ± 44.9	396,414,437 415.7 ± 20.6		

AZIDE
(1.0ug)

2-AF
(20ug)

MITOMYCIN C
(2ug)

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 TA102 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.


APPROVED SIGNATORY

END OF REPORT