AUSTRALIAN WATER QUALITY CENTRE

CERTIFICATE OF TEST

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

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, 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. Marchesan

M. MARCHESAN
APPROVED SIGNATORY

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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 Accreditation No. 1115)

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 3 mm and providing a total surface area of 15000 mm 2 per Litre. The samples were then cured for 7 days at 25°C. Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

CEMENTITOUS PRODUCTS A standard moist-curing of 28 days at 22°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. Five sequential soakings were performed to obtain a pH < 9.0

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

SCALING FACTOR Not applied.

RESULTS No tastes were detected in the controls or in the extracts prepared at an exposure of 15000 MM2 per Litre with chlorinated and non-chlorinated water.

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

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 Accreditation No. 1115)

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 3 mm and providing a total surface area of 15000 mm2 per Litre. The samples were then cured for 7 days at 25°C.
Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

CEMENTITOUS PRODUCTS A standard moist-curing of 28 days at 22°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. Five sequential soakings were performed to obtain a pH <9.0

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

SCALING FACTOR Not applied.

RESULTS

		Test (- Blank)	Maximum Allowed	
Colour	< 3.0	5.0		HU
Turbidity	< 0.35	0.5		NTU

EVALUATION The mean value of the test extract minus the blank for the final extract passed the requirements of clause 6.3 when tested at an exposure of 15000 mm 2 per Litre.

NUMBER OF SAMPLES One sample was tested

P.M.Thomas

P.M.THOMAS - SENIOR CHEMIST
APPROVED SIGNATORY

TEST REPORT FOR ASINZS 4020:1999

CLAUSE 6.4 - GROWTH OF AQUATIC MICRO-ORGANISMS

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE

PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA

(NATA Accreditation No. 1115)

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 3 mm and providing a total surface area of 15000 mm2 per Litre. The samples were then cured for 7 days at 25°C.

Extracts were prepared using a 1000 mL volume of water.

CEMENTITOUS PRODUCTS A standard moist-curing of 28 days at 22°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. Five sequential soakings were performed to obtain a pH < 9.0

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

INOCULUM The volume of inoculum was 100 mL.

SCALING FACTOR Not applied.

RESULTS

Mean Dissolved Oxygen	Control	6.7		mg/L
Mean Dissolved Oxygen Difference	Positive Reference		4.9	mg/L
	Negative Reference	0.2		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

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 Accreditation No. 2348)

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 3 mm and providing a total surface area of 15000 mm 2 per Litre. The samples were then cured for 7 days at 25°C.

CEMENTITOUS PRODUCTS A standard moist-curing of 28 days at 22°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. Five sequential soakings were performed to obtain a pH < 9.0
Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

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 control and test extracts.

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 MM2 per Litre.

NUMBER OF SAMPLES One sample was tested.

L. E. Payne.

L. PAYNE -SENIOR 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 Accreditation No. 1390)

REPORT NUMBER 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TRADE NAME OF PRODUCT XYPEX PATCH N' PLUG

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT REPAIR GROUT.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 3 mm and providing a total surface area of 15000 mm^2 per Litre. The samples were then cured for 7 days at 25°C.
Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

CEMENTITOUS PRODUCTS A standard moist-curing of 28 days at 22°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. Five sequential soakings were performed to obtain a pH < 9.0

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 4007/92.699

SAMPLE REFERENCE 130086-0006

DATE 19/10/00

TEST METHOD AS/NZS 4020:1999 MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)

RESULTS

BACTERIAL STRAIN	S9	Blank	Filtrate	Concentrate	Positive Controls	
				NPD (20ug)		2-AF (20ug)
Salmonella typhimurium TA98	-	28, 16, 22	25, 24, 27	25, 19, 31	1050,1050,548	
Mean ± Standard deviation		22.0 ± 6.0	25.3 ± 1.5	25.0 ± 6.0	869.3 ± 279.0	
	+	29, 24, 19	17, 35, 18	38, 26, 31	-	675,929,1060
Mean ± Standard deviation		24.0 ± 5.0	23.3 ± 10.1	31.7 ± 6.0	-	888.0 ± 195.7
					AZIDE (1.0ug)	2-AF (20ug)
Salmonella typhimurium TA100	-	156,185,177	139,145,121	150,152,188	596,603,612	
Mean ± Standard deviation			172.7 ± 15.0	135.0 ± 12.5	163.3 ± 21.4	603.7 ± 8.0
	+	141,160,140	148,116,120	149, 146,140		-
824,904,984						
Mean ± Standard deviation			147.0 ± 11.3	128.0 ± 17.4	145.0 ± 4.6	-
904.0 ± 80.0						
				MITOMYCIN C (tug)		
Salmonella typhimurium TA102	-	253,244,287	293,232,230	290,219,242	802,904,1041	
Mean ± Standard deviation			261.3 ± 22.7	251.7 ± 35.8	250.3 ± 36.2	915.7 ±
119.9						
Salmonella typhimurium TA102	+	223,277,220	231,292,210	221,280,278		
Mean ± Standard deviation			240.0 ± 32.1	244.3 ± 42.6	259.7 ± 33.5	

COMMENTS S9 was used as a metabolic activator. NPD (4-vitro-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.

M. MARCHESAN - SENIOR TECHNICAL OFFICER
APPROVED SIGNATORY

END OF REPORT