

# TEST REPORT



Accredited for compliance with ISO/IEC 17025 – Testing  
20678

## TEST SUMMARY

### Objective

**Revalidate supplied sample to AS/NZS 4858:2004**

### Project

**Revalidation Assessment of Test Report 077-1 AS/NZS4858:2004 – Durability controls & Cyclic Movement.**

### Report Number

**077-1 AS4858 Revalidation**

### Customer

NAME	Seamless Overlays
ADDRESS	329 Darebin Road, Thornbury VIC 3071
CONTACT PERSON	David Montalti
EMAIL	david@altsurfaces.com.au
TELEPHONE	(03) 9427 1100

### Name of test material

SEMCO Liquid Membrane

### Description of test material

Liquid anti-fracture & waterproofing membrane.

Sample no. AMTS240

### Date of receipt of test material

28/04/2023

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<b>Report number</b>	<b>Issue Date</b>	<b>Expiry Date</b>
<b>077-1 AS/NZS 4858:2004</b>	<b>14/07/2023</b>	<b>14/07/2025</b>

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## Testing Facility and Location

NAME	XTec Gen Pty Ltd
ADDRESS	30-32 Park Avenue Woodville North 5012
ABN	22634729294

## LIMITATION

The test results reported here relate only to the items tested.

## CUSTOMER SUPPLIED INFORMATION & DATA

2 coats @ 1mm

## TERMS AND CONDITIONS

This report is issued in accordance with the Terms and Conditions as detailed and agreed in the *XTecGen Test Request and Sample Submission Form*.

## SIGNATORIES

A handwritten signature in black ink, appearing to be "Eric Scardigno".

Author

*Eric Scardigno*

*Laboratory manager*

A handwritten signature in blue ink, appearing to be "Phil Scardigno".

Reviewer

*Phil Scardigno*

*Technical Manager*

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## SUMMARY OF TESTS

AS4858 Requirements:

PROPERTY	METHOD	RESULT	ASSESSMENT CRITERIA	ASSESSMENT
Acceptance of Cyclic movement	<i>AS4858 Appendix B</i>	No failures observed	<i>AS 4858 Appendix B Paragraph B4</i>	PASS
Durability <sup>1</sup> : Control Elongation at break	<i>AS1145.3</i>	626 %	<i>AS 4858 Table 5.1</i>	Class III
Durability <sup>1</sup> : Control Tensile Strength		2.84 MPa		

<sup>1</sup>Durability of membranes is a combined group of assessments as detailed in AS4858 Appendix A, Table A4.

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## DURABILITY OF MEMBRANE

### CONTROL SET

Date of test: 01/06/2023

Testing: Test carried out in accordance with AS 1145.3.

Additions, deviations and/or exclusions from AS 1145.3: Nil

### Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	22.0-23.8°C
Ambient humidity (conditioning)	35.1%-56%RH
Ambient temperature (testing)	22°C
Ambient humidity (testing)	52% RH
Accuracy grading of test machine	A
Specimen type	Type 5
Elongation measurement type:	Electronic internal measurement
Method of preparation of specimens	Cast
Orientation of specimens to direction of cast	Parallel to direction of casting blade
Clamping device:	Pneumatic jaws
Testing speed:	50mm/min

### Test Results:

Replicate	Sample thickness (mm)	Maximum Extension (mm)	Maximum Stress (MPa)	Maximum Strain (%)
1	0.725	563.436	3.300	1206.582
2	0.713	549.532	3.492	1077.507
3	0.732	631.936	3.402	1277.200
4	0.780	512.871	3.182	947.879
5	0.770	538.502	3.167	1063.248
Mean	0.74	559.3	3.31	1114
Std Deviation	0.03	44.7	0.14	129

Requirement for Class III (high extensibility):  $\geq 300\%$  elongation at break

Requirement for Class II (medium extensibility) 60-299% elongation at break

Requirement for Class I (low extensibility)  $< 60\%$  elongation at break.

### Classification: Class III

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**Durability control results as per 077-1 AS/NZS4858:2004: 1375%**

**Elongation required for revalidation: 1250%-1512.5%**

**Result: 1114%. Supplementary revalidation testing required.**

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## SUPPLEMENTARY REVALIDATION TEST:

### CYCLIC MOVEMENT

Date of test: 26/06-30/06/2023

#### Testing:

Testing carried out in accordance with AS 4858 Appendix B “Assessment of resistance of waterproofing membranes to cyclic movement”

Additions, deviations and/or exclusions from AS 4858 Appendix B:

Nil

#### Test Parameters:

PARAMETER	VALUE
Membrane class	III
Number of cycles	50
Cycle time	2 Hours
Cycle expansion	4 mm
Sample Size	65 mm x 25 mm
Sample span	2 mm between plates
Sample thickness	1.44mm

#### Test Results:

TEST RESULT	VALUE
Number of cycles completed	50
Surface crazing	Nil
Surface tears	Nil
Membrane rupture	Nil

#### Test Observations:

DAY	DATE	NUMBER OF CYCLES	Failure Observed		
			RUPTURE/HOLING		OTHER
1	26/06/2023	0	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
2	27/06/2023	12	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
3	28/06/2023	24	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
4	29/06/2023	36	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
5	30/06/2023	50	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	

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Passing requirement: *“Any rupture holing the specimen or extending through the thickness for more than 1mm in from the edge of the specimen shall be taken as a failure and the number of cycles to failure shall be reported. If failure does not occur after 50 cycles it shall be reported together with the types of any surface defects that have been induced and the number of cycles at which onset of the defect occurred”*

**Result: Pass. Meets the requirement for CSIRO moving joint test as per AS 4858.1 Appendix B.**

## REVALIDATION:

Revalidation granted for sample 077-1 AS/NZS4858:2004 until 14/07/2025.

END OF REPORT

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