

TEST REPORT



Accredited for compliance with ISO/IEC 17025 – Testing
20678

TEST SUMMARY

Objective

Assessment of supplied sample to AS/NZS 4858 Bleach Immersion

Project

Assessment of Actflex 906 to AS/NZS 4858 Bleach Immersion

Report Number

324-1 AS/NZS 4858

Customer

NAME	Actech Protective Coatings
ADDRESS	22/872 Canterbury Road, Roselands 2196
CONTACT PERSON	James Gilto
EMAIL	admin@actechpc.com.au
TELEPHONE	0424 424 178

Name of test material

ACTFLEX 906

Description of test material

Water based Polyurethane

Date of receipt of test material

16/05/2024

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Laboratories"*

Report number	Issue Date	Expiry Date
324-1 AS/NZS 4858:2004	24/07/2024	24/07/2027

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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

N/A

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

Author

Ruby Scardigno

Laboratory Technician

Reviewer

Eric Scardigno

Laboratory Manager

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SUMMARY OF TESTS

AS4858 Requirements:

PROPERTY	METHOD	RESULT	ASSESSMENT CRITERIA	ASSESSMENT
Durability ¹ : Control Elongation at break	AS1145.3	274 %	AS 4858 Table 5.1	Class II
Durability ¹ : Control Tensile Strength		2.28 MPa		
Durability ¹ : Bleach Immersion Elongation at break		650 %		PASS
Durability ¹ : Bleach Immersion Tensile Strength		0.11MPa		

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DURABILITY OF MEMBRANE

CONTROL SET

Date of test: 28/05/2024

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)	22.6-25.9°C
Ambient humidity (conditioning)	42.6-50.4% RH
Ambient temperature (testing)	25.9°C
Ambient humidity (testing)	48.9% 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	1.078	73.0	2.25	292
2	1.114	69.9	2.27	280
3	1.112	63.8	2.29	255
4	1.054	70.3	2.27	281
5	1.07	65.9	2.30	263
Mean	1.09	68.6	2.28	274
Std Deviation	0.03	3.7	0.02	15

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 II

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DURABILITY OF MEMBRANE

BLEACH IMMERSION

Date of test: 04/06/2024-23/07/2024

Testing:

Test carried out in accordance with AS 4858 Table A1.

Additions, deviations and/or exclusions from AS 4858 Table A1:

Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	22.6-25.9°C
Ambient humidity (conditioning)	42.6-50.4% RH
Ambient temperature (testing)	24-24.4°C
Ambient humidity (testing)	33.5-53% RH
Minimum 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:

Sample Number	Sample thickness (mm)	Maximum Extension (mm)	Tensile strength (MPa)	Elongation at break (%)
1	1.22	239.2	0.27	957
2	1.17	263.9	0.28	1056
3	1.12	226.0	0.28	904
7 Day Means	1.17	243.0	0.28	972
7 Day Std Devs	0.05	19.3	0.00	77
4	1.27	156.4	0.15	626
5	1.28	136.3	0.15	545
6	1.39	146.7	0.14	587
28 Day Means	1.31	146.5	0.14	586
28 Day Std Devs	0.07	10.1	0.00	40
7	1.21	173.0	0.11	692

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8	1.19	163.3	0.12	653
9	1.16	151.3	0.11	605
56 Day Means	1.18	162.5	0.11	650
56 Day Std Devs	0.02	10.8	0.00	43

Passing Requirement: *“Elongation at break shall not be less than 50% of that of the controls for the bond breakers given in Table 6.1 [AS4848]. For an elongation between 50% and 25% of the controls the membrane requires additional bond relief above that given in [AS4858] Table 6.1. A failure is for less than 25% retention of elongation at break of the controls”.*

To pass this condition an elongation at break value of 69% or greater is required.

Result: 650% PASS

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END OF REPORT

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