

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

TEST SUMMARY

Objective

Assessment of supplied sample to AS4654.1

Project

Evaluation of Liquid Rubber DIY Waterproof Sealant to 4654.1

Report Number

0114-2 AS4654.1

Customer

NAME	Liquid Rubber DIY
ADDRESS	1 Conway Court Nerang QLD 4211
CONTACT PERSON	Ayden Wass
EMAIL	info@liquidrubberdiy.com
MOBILE	0423 743 423

Name of test material

Waterproof Sealant

Description of test material

Thick, brown liquid with no fibres or aggregate supplied in labelled 5L pail. Batch: BG0621-1

Date of receipt of test material

09/06/2021

*“This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories”*

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

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

To be applied in 2-3 coats @ 1-2 mm per coat for total build of 1.5-2mm DFT

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

Tara Rezazadeh

Assistant Laboratory Manager

Reviewer

Stefan Lukas

Technical Manager

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

SUMMARY OF TESTS

AS4654.1 Requirements:

PROPERTY	METHOD	RESULT	ASSESSMENT CRITERIA	ASSESSMENT
Abrasion Resistance: Non-Trafficable	AS 1580.403.2	0.102 mm	AS 4654.1 Paragraph 2.3	Meets requirement for non-trafficable membrane
Abrasion Resistance: Trafficable	AS 1580.403.2	0.276 mm	AS 4654.1 Paragraph 2.3	Does not meet requirement for regular, occasional or pedestrian traffic
Bond Strength	ASTM C794	115.49 N	State result	
Acceptance of Cyclic movement	AS 4654.1 Appendix B	Failure not observed	AS 4654.1 Appendix B, Paragraph B4	PASS
Durability: Control Elongation at Break	AS 4654.1 Appendix A	$\alpha > 1800\%$	AS 4654.1 Appendix A, Table A1	CLASS III
Durability: Control Tensile Strength		0.16 MPa	State result	
Durability: Water Immersion Elongation at Break		$> 1800\%$	AS 4654.1 Appendix A, Table A4	PASS
Durability: Water Immersion Tensile Strength		0.04 MPa	State result	
Durability: Detergent Immersion Elongation at Break		$> 1800\%$	AS 4654.1 Appendix A, Table A4	PASS
Durability: Detergent Immersion Tensile Strength		0.04 MPa	State result	
Durability: Heat Aging Elongation at Break		$> 1800\%$	AS 4654.1 Appendix A, Table A4	PASS
Durability: Heat Aging Tensile Strength		0.67 MPa	State result	

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number 0114-2 AS 4654.1	Issue Date 01/09/2021	Expiry Date 01/09/2024
--	---------------------------------	----------------------------------

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

Durability: Ultraviolet Resistance Elongation at Break		>1800%	AS 4654.1 Appendix A, Table A4	PASS
Durability: Ultraviolet Resistance Tensile Strength		0.37 MPa	State result	
Temperature Resistance: Water Vapour Transmission	AMTM004	0.41 g/m ² /24 hours	State result	
Water Vapour Transmission	ASTM E96	-0.22 g/m ² /24 hours	State result	

^α1800% is the maximum capable extension of the UTM used for testing these samples.

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number 0114-2 AS 4654.1	Issue Date 01/09/2021	Expiry Date 01/09/2024
--	---------------------------------	----------------------------------

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

ABRASION RESISTANCE: NON-TRAFFICABLE

Testing: Test carried out in accordance with AS 1580.403.2.

Additions, deviations and/or exclusions from AS1580.403.2:

Determination of abrasive wear performed as per AS4654.1, Paragraph 2.3.1

Results

Date of test: 03/08/2021

PARAMETER	VALUE
Abrasion assessment method	Depth of abrasion
Depth of abrasion	0.102mm
Abrasive wheels: Model	CS-10
Panel 1 Abrasive wheels: Serial Number & Expiry Date	KX03C1- December 2024
Panel 2 Abrasive wheels: Serial Number & Expiry Date	KP15C1- September 2024
Mass applied to abrasive wheels	1000g
Model of abraser	Gester GT-C14B-2
Number of cycles per test panel	500

PANEL	READING	THICKNESS BEFORE ABRASION (mm)	THICKNESS AFTER ABRASION (mm)	LOSS OF MEMBRANE BUILD (mm)
1	1	2.619	2.548	0.071
	2	2.608	2.536	0.072
	3	2.686	2.581	0.105
2	1	2.745	2.560	0.185
	2	2.557	2.537	0.020
	3	2.690	2.529	0.161
Mean		2.651	2.549	0.102
Standard Deviation		0.042	0.023	0.062

Passing Requirement: *“When tested in accordance with AS 1580.403.2 using the CS-10 wheel with 500 cycles, for areas subjected only to maintenance access, the depth of abrasion shall be less than 0.2mm”*

Result: 0.102mm. This sample is suitable for areas subjected to only maintenance access.

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number 0114-2 AS 4654.1	Issue Date 01/09/2021	Expiry Date 01/09/2024
--	---------------------------------	----------------------------------

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

ABRASION RESISTANCE: TRAFFICABLE

Testing

Test carried out in accordance with AS 1580.403.2.

Additions, deviations and/or exclusions from AS 1580.403.2:

Determination of abrasive wear performed as per AS4654.1, Paragraph 2.3.2

Results

Date of test: 03/08/2021

PARAMETER	VALUE
Abrasion assessment method	Depth of abrasion
Depth of abrasion	0.276mm
Abrasive wheels: Model	H-22
Panel 1 Abrasive wheels: Serial Number	KM15B2
Panel 2 Abrasive wheels: Serial Number	KM15B2
Mass applied to abrasive wheels	1000g
Model of abraser	Gester GT-C14B-2
Number of cycles per test panel	1000

PANEL	READING	THICKNESS BEFORE ABRASION (mm)	THICKNESS AFTER ABRASION (mm)	LOSS OF MEMBRANE BUILD (mm)
1	1	2.728	2.456	0.272
	2	2.678	2.458	0.220
	3	2.629	2.301	0.328
2	1	2.727	2.467	0.260
	2	2.674	2.399	0.275
	3	2.893	2.594	0.299
Mean		2.722	2.446	0.276
Standard Deviation		0.050	0.090	0.036

Passing Requirement:

“Abrasion resistance for trafficable shall be as follows:

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number
0114-2 AS 4654.1

Issue Date
01/09/2021

Expiry Date
01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

- a) When tested in accordance with AS 1580.403.2 using the H-22 wheel with 1000 cycles, for areas subjected only to pedestrian traffic, the depth of abrasion shall be less than 0.2mm.
- b) When tested in accordance with AS1580.403.2 using the H-22 wheel with 1000 cycles, for areas subjected only to occasional service vehicle traffic, the depth of abrasion shall be less than 0.1mm.
- c) When tested in accordance with AS 1580.403.2 using the H-22 wheel with 1000 cycles, for areas subjected to regular foot traffic, the depth of abrasion shall be less than 0.05mm.”

Result: The test achieved a depth of abrasion of 0.276mm. This sample is not suitable for regular vehicle, occasional service, or pedestrian traffic.

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

BOND STRENGTH

Date of test: 29/07/2021

Testing:

Testing carried out in accordance with ASTM C794.

Additions, deviations and/or exclusions from ASTM C794:

Nil

Specimen Preparation:

PARAMETER	VALUE
Substrate	Concrete block
Substrate preparation	Wiped with damp cloth
Substrate primer	unprimed
Mesh preparation	Wiped with damp cloth
Mesh primer	unprimed

Test Results:

READING	PEAK PEEL FORCE (N)	MODE OF FAILURE			
		SUBSTRATE FAILURE (%)	ADHESIVE FAILURE (%)	COHESIVE FAILURE (%)	SCREEN DELAMINATION (%)
Specimen 1 Reading 1	94.63	10	0	0	90
Specimen 1 Reading 2	116.04	40	0	0	60
Specimen 1 Reading 3	138.94	0	0	0	100
Specimen 1 Reading 4	162.66	0	0	0	100
Specimen 2 Reading 1	131.77	30	0	0	70
Specimen 2 Reading 2	106.38	0	0	0	100

*"This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories"*

Report number
0114-2 AS 4654.1

Issue Date
01/09/2021

Expiry Date
01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

Specimen 2 Reading 3	131.75	0	0	0	100
Specimen 2 Reading 4	114.55	0	0	0	100
Specimen 3 Reading 1	86.43	10	0	0	90
Specimen 3 Reading 2	80.99	5	0	0	95
Specimen 3 Reading 3	96.47	0	0	0	100
Specimen 3 Reading 4	125.29	0	0	0	100
Average	115.49				
Std Dev	23.96				

Result: 115.49N

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number 0114-2 AS 4654.1	Issue Date 01/09/2021	Expiry Date 01/09/2024
--	---------------------------------	----------------------------------

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

CYCLIC MOVEMENT

Date of test: 19-23/07/21

Testing: Testing carried out in accordance with AS 4654.1 Appendix B “Assessment of resistance of waterproofing membranes to cyclic movement”

Additions, deviations and/or exclusions from AS 4654.1 Appendix B: Nil

Test Parameters:

PARAMETER	VALUE
Membrane class	III
Number of cycles	50
Cycle time	2 Hours
Cycle expansion	4.03 mm
Sample Size	65 mm x 25 mm
Sample span	2 mm between plates
Sample thickness	1.802 mm

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	20/07/2021	10	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2	21/07/2021	22	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3	22/07/2021	32	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4	23/07/2021	46	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5	23/07/2021	50	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

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 4654.1 Appendix B.

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number 0114-2 AS 4654.1	Issue Date 01/09/2021	Expiry Date 01/09/2024
--	---------------------------------	----------------------------------

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

DURABILITY OF MEMBRANE

CONTROL SET

Date of test: 06/07/2021

Testing:

Test carried out in accordance with AS 4654.1 Appendix A.

Additions, deviations and/or exclusions from AS 4654.1 Appendix A: Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	20.9-24.0°C
Ambient humidity (conditioning)	40.5-45.1% RH
Ambient temperature (testing)	23°C
Ambient humidity (testing)	37% RH
Accuracy grading of test machine	A
Specimen type	Type 2
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)	Tensile Strength (MPa)	Elongation at Break (%)
1	2.00	α 454.6	0.16	α >1800
2	1.99	454.6	0.15	>1800
3	1.97	454.6	0.15	>1800
4	2.00	454.6	0.17	>1800
5	1.99	454.6	0.15	>1800
Mean	1.99	454.6	0.16	>1800
Std Deviation	0.01	0.0	0.01	0.0

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.

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

454.6 mm Extension and 1800 % Elongation are the maximum capable extension of the UTM used for testing these samples.

Classification: Class III

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

DURABILITY OF MEMBRANE

WATER IMMERSION

Date of test: 13/07-31/08/2021

Testing:

Test carried out in accordance with AS 4654.1 Appendix A.

Additions, deviations and/or exclusions from AS 4654.1 Appendix A:

Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	20.9-24.0°C
Ambient humidity (conditioning)	40.5-45.1% RH
Ambient temperature (testing)	22°C
Ambient humidity (testing)	38-41% RH
Minimum accuracy grading of test machine	A
Specimen type	Type 2
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	2.00	α 454.6	0.04	α >1800
2	2.00	454.6	0.02	>1800
3	2.00	454.6	0.03	>1800
7 Day Means	2.00	454.6	0.03	>1800
7 Day Std Devs	0.00	0.0	0.01	0.0
4	1.98	454.6	0.08	>1800
5	1.98	454.6	0.05	>1800
6	1.98	454.6	0.03	>1800
28 Day Means	1.98	454.6	0.05	>1800
28 Day Std Devs	0.00	0.0	0.03	0.0

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number
0114-2 AS 4654.1

Issue Date
01/09/2021

Expiry Date
01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

7	2.00	454.6	0.05	>1800
8	2.00	454.6	0.04	>1800
9	2.00	454.6	0.04	>1800
56 Day Means	2.00	454.6	0.04	>1800
56 Day Std Devs	0.00	0.0	0.01	0.0

Passing Requirement: *“Elongation at break shall not be less than 25% retention of elongation at break of the controls”* 58] Table 6.1. A failure is for less than 25% retention of elongation at break of the controls”.

454.6 mm Extension and 1800 % Elongation are the maximum capable extension of the UTM used for testing these samples.

To pass this condition an elongation at break value of 452% or greater is required.

Result: >1800% PASS

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

DURABILITY OF MEMBRANE

DETERGENT IMMERSION

Date of test: 13/07-31/08/2021

Testing:

Test carried out in accordance with AS 4654.1 Appendix A.

Additions, deviations and/or exclusions from AS 4654.1 Appendix A:

Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	20.9-24.0°C
Ambient humidity (conditioning)	40.5-45.1% RH
Ambient temperature (testing)	22°C
Ambient humidity (testing)	38-41% RH
Minimum accuracy grading of test machine	A
Specimen type	Type 2
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: Detergent Immersion

Sample Number	Sample thickness (mm)	Maximum Extension (mm)	Tensile strength (MPa)	Elongation at break (%)
1	2.00	α 454.6	0.03	α >1800
2	2.00	454.6	0.03	>1800
3	2.00	454.6	0.03	>1800
7 Day Means	2.00	454.6	0.03	>1800
7 Day Std Devs	0.00	0.0	0.00	0.0
4	1.98	454.6	0.04	>1800
5	1.98	454.6	0.04	>1800
6	1.99	454.6	0.04	>1800
28 Day Means	1.98	454.6	0.04	>1800
28 Day Std Devs	0.01	0.0	0.00	0.0

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number
0114-2 AS 4654.1

Issue Date
01/09/2021

Expiry Date
01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

7	2.00	454.6	0.05	>1800
8	2.00	454.6	0.04	>1800
9	2.00	454.6	0.04	>1800
56 Day Means	2.00	454.6	0.04	>1800
56 Day Std Devs	0.00	0.0	0.01	0.0

Passing Requirement: *“Elongation at break shall not be less than 25% retention of elongation at break of the controls”.*

454.6 mm Extension and 1800 % Elongation are the maximum capable extension of the UTM used for testing these samples.

To pass this condition an elongation at break value of 452% or greater is required.

Result: >1800% PASS

“This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories”

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

DURABILITY OF MEMBRANE

HEAT AGING

Date of test: 31/08/2021

Testing:

Test carried out in accordance with AS 4654.1 Appendix A.

Additions, deviations and/or exclusions from AS 4654.1 Appendix A:

Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	20.9-24.0°C
Ambient humidity (conditioning)	31.5-53.4% RH
Ambient temperature (testing)	25°C
Ambient humidity (testing)	33% RH
Accuracy grading of test machine	A
Specimen type	Type 2
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:

Number of replicates	Sample thickness (mm)	Maximum Extension (mm)	Tensile strength (MPa)	Elongation at break (%)
1	1.80	α 454.6	0.56	α >1800
2	1.79	454.6	0.63	>1800
3	1.92	454.6	0.82	>1800
Mean	1.84	454.6	0.67	>1800
Std Deviation	0.07	0.0	0.13	0.0

Passing Requirement: "Elongation at break shall be not less than 50% of the result recorded for the controls".

454.6 mm Extension and 1800 % Elongation are the maximum capable extension of the UTM used for testing these samples.

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

To pass this condition an elongation at break value of 904% or greater is required.

Result: >1800% PASS

*“This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories”*

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

DURABILITY OF MEMBRANE

ULTRAVIOLET EXPOSURE

Date of test: 20/08/2021

Testing:

Test carried out in accordance with AS 4654.1 Appendix A.

Additions, deviations and/or exclusions from AS 4654.1 Appendix A:

Nil

Test Parameters:

PARAMETER	VALUE
Ambient temperature (conditioning)	20.9-24.0°C
Ambient humidity (conditioning)	40.5-45.1% RH
Ambient temperature (testing)	22°C
Ambient humidity (testing)	39% RH
Accuracy grading of test machine	A
Specimen type	Type 2
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:

Number of replicates	Sample thickness (mm)	Maximum Extension (mm)	Tensile strength (MPa)	Elongation at break (%)
1	2.00	α 454.6	0.35	α >1800
2	1.99	454.6	0.34	>1800
3	1.99	454.6	0.43	>1800
Mean	1.99	454.6	0.37	>1800
Std Deviation	0.00	0.0	0.05	0.0

Passing Requirement: "Elongation at break shall be not less than 40% of the result recorded for the controls".

454.6 mm Extension and 1800 % Elongation are the maximum capable extension of the UTM used for testing these samples.

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

To pass this condition an elongation at break value of 724% or greater is required.

Result: >1800% PASS

*“This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories”*

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

TEMPERATURE RESISTANCE

Date of test: 16-30/08/2021

Testing:

Test carried out in accordance with AMTM004.

Additions, deviations and/or exclusions from AMTM004:

Nil

Test Parameters:

PARAMETER	VALUE
Cold exposure: Immersion date	06/07/2021 09:10Hrs
Cold exposure: Removal date	08/07/2021 09:10Hrs
Cold exposure: Temperature range	-16.6- -14.2°C
Heat exposure: Immersion date	28/07/2021 10:00Hrs
Heat exposure: Removal date	30/07/2021 10:00Hrs
Heat exposure: temperature range	85.7 °C
WVT: Date of test	16-30/08/2021
WVT: Test temperature	22.0-24.3°C
WVT: Test humidity	33.4-54.3% RH
WVT: Cup design	Round, anodised aluminium cup with sealing flange
WVT: Cup sealant	WVT: Cup sealant
WVT: Desiccant	Anhydrous Calcium Chloride

Test Results- Temperature Resistance

SAMPLE	THICKNESS (mm)	SIDE OF SPECIMEN HIGHER VAPOUR PRESSURE WAS APPLIED TO	REGRESSION		WATER VAPOUR TRANSMISSION RATE (g/m ² /24 hours)
			EQUATION	r ² VALUE	
1	1.85	Side A, top of cast film	Mass _(g) =0.00001(Time _{hr})+169.49	0.9768	0.07
2	2.16	Side A, top of cast film	Mass _(g) =0.00001(Time _{hr})+168.17	0.9824	0.07
3	2.08	Side B, bottom of cast film	Mass _(g) =0.0002(Time _{hr})+169.52	0.9989	1.44

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number
0114-2 AS 4654.1

Issue Date
01/09/2021

Expiry Date
01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

4	1.90	Side B, bottom of cast film	$Mass_{(g)}=0.00001(Time_{hr})+164.42$	0.9894	0.07
Mean	1.85				0.41
Std Deviation	2.16				0.69

Result: 0.41 g/m²/24 hours. PASS

*“This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories”*

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

WATER VAPOUR TRANSMISSION RATE

Date of test: 15/7-02/08/2021

Testing:

Test carried out in accordance with ASTM E96 Desiccant Method.

Additions, deviations and/or exclusions from ASTM E96 Desiccant Method:

Nil

Test Parameters:

PARAMETER	VALUE
Test temperature:	21.9-23.6°C
Test humidity:	38.1-56.4% RH
Cup design:	Round, anodised aluminium cup with sealing flange
Sealant:	WVT: Cup sealant
Desiccant:	Anhydrous Calcium Chloride

Test Results

SAMPLE	THICKNESS (mm)	SIDE OF SPECIMEN HIGHER VAPOUR PRESSURE WAS APPLIED TO	REGRESSION		WATER VAPOUR TRANSMISSION RATE (g/m ² /24 hours)
			EQUATION	r ² VALUE	
1	1.75	Side A, top of cast film	Mass _(g) =-0.00002(Time _{hr})+136.56	0.9136	-0.14
2	1.69	Side A, top of cast film	Mass _(g) =-0.00002(Time _{hr})+131.67	0.9168	-0.14
3	1.78	Side B, bottom of cast film	Mass _(g) =-0.00004(Time _{hr})+132.13	0.9401	-0.29
4	1.70	Side B, bottom of cast film	Mass _(g) =-0.00004(Time _{hr})+130.71	0.9312	-0.29
Mean	1.75				-0.22
Std Deviation	1.69				0.08

Result: -0.22 g/m²/24 hours. PASS

"This report shall not be reproduced except in full without prior approval of XTec Gen Laboratories"

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024

TEST REPORT



ACCREDITED FOR
**TECHNICAL
COMPETENCE**

Accredited for compliance with ISO/IEC 17025 – Testing
20678

END OF REPORT

*“This report shall not be reproduced except in full without prior approval of XTec Gen
Laboratories”*

Report number	Issue Date	Expiry Date
0114-2 AS 4654.1	01/09/2021	01/09/2024