

# AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing

A.B.N 43 006 014 106

1st Floor, 191 Racecourse Road, Flemington, Victoria 3031

P.O Box 240, North Melbourne, Victoria 3051

Phone (03) 9371 2400 Fax (03) 9371 2499

## TEST REPORT

**Client :** ConstructAmesh Pty Ltd  
Unit 1, 49 Links Avenue North  
Eagle Farm QLD 4009

**Test Number :** 18-003433  
**Issue Date :** 2/07/2018  
**Print Date :** 2/07/2018

**Sample Description** Clients Ref : "Constructamesh"  
Knitted mesh  
Colour : Red/Black  
Nominal Composition : HDPE + FR  
Nominal Mass per Unit Area/Density : 170g/m2  
Nominal Thickness : Approx. 1mm

AS 1530.2-1993

### Methods for Fire Tests on Building Materials, Components and Structures. Part 2: Test for Flammability of Materials

Date Tested	28/06/2018	
Flammability Index	9	
	Length	Width
Spread Factor	6	1
Heat Factor	3	2
Maximum height (d)		
Mean	5.8	3.7
Coefficient of Variation	116.7	122.7 %
Heat (a)		
Mean	12.2	6.5 °C.min
Coefficient of Variation	165.6	111.3 %
Number of Specimens Tested	9	9
Observation	Melting and dripping	

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test, and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

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Accredited for compliance with ISO/IEC 17025 - Testing

- Chemical Testing  
- Mechanical Testing  
- Performance & Approvals Testing

: Accreditation No. 983  
: Accreditation No. 985  
: Accreditation No. 1356

Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.



APPROVED SIGNATORY

MICHAEL A. JACKSON B.Sc (Hons)  
MANAGING DIRECTOR

**AS 1530.2-1993**

**Methods for fire tests on building materials, components and structures**

**Part 2**

**Test for flammability of materials**

This test applies to thin flexible materials that are sufficiently pliable to be inserted into the apparatus by hand without special softening treatment.

The test is used for products such as sarking (building papers), curtains, drapes and other vertically oriented thin flexible materials.

A sample of material (535mm x 75mm) is placed vertically in a test rig and ignited at the bottom using a small alcohol flame. The height to which the flame travels up the specimen is recorded. If the flame reaches the top of the specimen, then the time to reach the top is also recorded. In addition the rise in temperature of the gasses in a flue above the test rig is also recorded continuously during the test.

The flame height is used to calculate a Spread Factor (in the range 0-40), the time for the flame to reach the top of the specimen, if recorded, is used to calculate a Speed Factor (in the range 0-60) and the area under the temperature curve is used to calculate a Heat Factor (generally in the range 0-40). *The Flammability Index is the sum of the Heat Factor plus the larger of the Spread Factor and the Speed Factor.*

The Flammability Index is generally compared with the requirements given in the Building Code of Australia to see in which classes of building the product may be used. In addition some government authorities have specific requirements for such products as vertical drapes.

Kind Regards

**Fiona McDonald**

Product Technologist

*All testing services are conducted under our terms & conditions:*

[www.awtaproducttesting.com.au/index.php/about/terms-and-conditions](http://www.awtaproducttesting.com.au/index.php/about/terms-and-conditions)



Textiles • Building • Transport

**AWTA Product Testing**

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# THE MARRON CONSULTANCY

ABN 96 276 451 253  
4/168 Beecroft Road, Cheltenham, NSW 2119  
Phone/Fax +61 2 9868 5351 — Mobile 0408 335 558  
Email: [crawd@bigpond.net.au](mailto:crawd@bigpond.net.au)

## CERTIFICATE

**Date:** 2 May 2018

**Client:** ConstructAmesh Pty Ltd  
1/49 Links Avenue North  
Eagle Farm, QLD 4009

**Project:** ConstructAmesh resistance to impacting objects

**Reference:** Test protocol by The Marron Consultancy — April 2018  
Test Report from Mahaffey Associates Pty Ltd — April 2018

**Requirement:** ConstructAmesh is a mesh that is fixed by ties through eyelets to the scaffolding edge protection components of ledgers and midrails. The test is to determine the effectiveness of ConstructAmesh when fixed to scaffolding where demolition is to take place. The intent is to determine if correctly fixed ConstructAmesh is able to contain solid materials resulting from demolition falling from a working platform. To this end ConstructAmesh fixed to a panel of scaffolding will be subjected to the test specified in AS/NZS 4994.1, Appendix E as amended by the Test protocol.

**Certification:**

When tied through the eyelets built into the ConstructAmesh and secured to the relevant ledgers and standards of a scaffold using RS, Non-Releasable Black Nylon 66 Cable Ties, 610 mm x 9 mm (RS Stock number 666-4697) the ConstructAmesh did not tear at the point of impact nor was it penetrated by the test impacting mass of 60 kg. There was some minor tearing at edges of the ConstructAmesh where it was attached to the supporting ledgers and the test mass impacted close by.

Provided ConstructAmesh is attached to scaffolding equipment at all eyelet positions using RS Stock number 666-4697 cable ties it will contain hard objects of 60 kg mass.



D. W. Crawford BE (UNSW), ASTC, MIEAust NER # 149841, RPEQ #17704

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**Client: ConstructAmesh Pty Ltd**

**Date: 3 April 2018**

**Project: Test protocol for impact on ConstructAmesh**

**Preliminary:**

ConstructAmesh is a mesh that is fixed by ties through eyelets to the scaffolding edge protection components of ledgers and midrails. The test procedure set out here is to determine the effectiveness of ConstructAmesh when fixed to scaffolding where demolition is to take place. The intent is to determine if correctly fixed ConstructAmesh will be able to contain solid materials from demolition falling from a working platform. To this end ConstructAmesh fixed to a panel of scaffolding will be subjected to the test specified in AS/NZS 4994.1, Appendix E as amended below.

**1. Test assembly:**

The test assembly will be erected using any available prefabricated modular scaffolding system. The test assembly will comprise 3 bays of standards spaced 2.4 m apart and fitted with platform level ledgers at 2 m centres. A guardrail and midrail at standard heights will be installed. For stability the test assembly will be fitted with a diagonal brace of the nominal external face. For additional stability it may be advisable to erect the scaffolding support framing as a scaffold 3 bays in length and 1 bay in depth. ConstructAmesh will be fitted to the nominal internal face of the test assembly, being on the inside of the edge protection guardrail and midrail. The perimeter eyelets of the ConstructAmesh will be secured at each eyelet to the platform ledgers using cable ties. At the level of the guardrail and the midrail mid-span fixing to these components may be with appropriate wire clips. The test assembly will be erected in the vertical orientation in a test rig and stabilized against a horizontal impact force.

**2. Test procedure:**

The test force will be applied by a 60 kg pendulum mass rotating through a vertical distance of 1000 mm generally as detailed in AS/NZS 4994.1, Appendix E.

Three tests will be carried out.

- 2.1 Test for impact on the ConstructAmesh impacting the centre bay at mid-span between the standards at mid-height between the guardrail ledger and the upper platform ledger.
- 2.2 Test for impact on the ConstructAmesh impacting the centre bay at 500 mm from a standard at mid-height between the guardrail ledger and the upper platform ledger.
- 2.3 Test for impact on the ConstructAmesh impacting the end of the centre bay at mid-span between the standards at mid-height between the guardrail ledger and the midrail ledger. A test between the midrail ledger and the platform ledger is not applicable as normally there is a toeboard at the platform level.

**3. Acceptance criteria:**

The following acceptance criteria shall apply:

- (a) Following the impact the ConstructAmesh with any of the three tests above the ConstructAmesh shall not tear.

- (b) Following the impact the ConstructAmesh with any of the three tests above none of the perimeter securing cable ties shall fail.

**4. Test report:**

The test report shall include at least the following:

- (a) Name and location of the testing facility.
- (b) Identification of the scaffolding system used to support the ConstructAmesh.
- (c) Photographs of the test assembly as set up including the arrangement of the swinging mass and the means of supporting the test assembly.
- (d) The weight of the swing mass used for the test.
- (e) The outcome of the tests and whether all acceptance criteria in 3 above were met.
- (f) Whether the scaffold test assembly was distorted under the impact force.
- (g) Date of test.
- (h) Name, position and qualifications of the person responsible for the tests.
- (i) Signature of the person responsible for the test.
- (j) A copy of the test procedure shall be attached as an appendix.

Test protocol prepared by:



D. W. Crawford BE (UNSW), ASTC, MIEAust NER # 149841, RPEQ #17704

October 14, 2013

**Mail To:**

**Malcolm Matthews**  
**Constructamesh Pty Ltd**

email: whornsey@tri-env.com

**Bill To:**

**<= Same**

Dear Mr. Matthews:

Thank you for consulting TRI Australasia (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

**Project: Constructamesh Pty Ltd - Safety Mesh**

**TRI Job Reference Number: E2386-02-09**

**Material(s) Tested: One Safety Mesh Woven Geotextile(s)**

**Test(s) Requested: Grab Tensile (AS3706.2b)**

If you have any questions or require any additional information, please call us at (07) 5535 7227.

Sincerely,

Warren Hornsey Pr. Eng.  
Director

This report replaces the original report. Amendments made: Client and Project Name. 11 November 2013

**GEOTEXTILE TEST RESULTS**  
**TRI Client: Constructamesh Pty Ltd**  
**Project: Constructamesh Pty Ltd - Safety Mesh**

Material: Safety Mesh Woven Geotextile  
Roll Number : A15  
TRI Log #: E2386-02-09

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
<b>Grab Tensile Properties (AS3706.2b)</b>												
MD - Tensile Strength (lbs)	304	328	285	327	380	338	336	344	350	342	<b>333</b>	26
MD - Tensile Strength (N)	1355	1459	1267	1455	1690	1506	1494	1531	1556	1521	<b>1483</b>	114
MD - Tensile Strength (kN)	1.35	1.46	1.27	1.45	1.69	1.51	1.49	1.53	1.56	1.52	<b>1.48</b>	0.11
TD - Tensile Strength (lbs)	278	243	290	269	225	217	276	245	249	239	<b>253</b>	24
TD - Tensile Strength (N)	1238	1082	1291	1198	1000	967	1230	1089	1109	1063	<b>1127</b>	108
TD - Tensile Strength (kN)	1.24	1.08	1.29	1.20	1.00	0.97	1.23	1.09	1.11	1.06	<b>1.13</b>	0.11
MD - Elong. @ Max. Load (%)	97	107	105	109	117	110	110	109	117	112	<b>109</b>	6
TD - Elong. @ Max. Load (%)	82	78	91	90	82	73	85	76	86	80	<b>82</b>	6

MD Machine Direction      TD Transverse Direction

This report replaces the original report. Amendments made: Client and Project Name. 11 November 2013

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



November 2, 2013

**Mail To:**

**Malcolm Matthews**  
**Constructamesh Pty Ltd**

email: whornsey@tri-env.com

**Bill To:**

**<= Same**

Dear Mr. Matthews:

Thank you for consulting TRI Australasia (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: **Constructamesh Pty Ltd - Safety Mesh**

TRI Job Reference Number: E2386-02-09

Material(s) Tested: One Safety Mesh Woven Geotextile(s)

Test(s) Requested: Mullen Burst ( ASTM D3786)

If you have any questions or require any additional information, please call us at (07) 5535 7227.

Sincerely,

Warren Hornsey Pr. Eng.  
Director

This report replaces the original report. Amendments made: Client and Project Name. 11 November 2013



**GEOTEXTILE TEST RESULTS**  
**TRI Client: Constructamesh Pty Ltd**  
**Project: Constructamesh Pty Ltd - Safety Mesh**

**Material: Safety Mesh Woven Geotextile**  
**Roll Number : A15**  
**TRI Log #: E2386-02-09**

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	
	1	2	3	4	5	6	7	8	9	10			
<b>Mullen Burst Strength ( AS2001.2.4, modified)</b>													
Tare (kPa):	138												
Burst Strength (kPa)	3723	4274	2551	3723	4205	3930	4067	4343	3585	4274	<b>3868</b>	534	
											<b>Tare Not Subtracted</b>		

MD Machine Direction      TD Transverse Direction

This report replaces the original report. Amendments made: Client and Project Name. 11 November 2013

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

17 February 2014

**Mail To:**

**Malcolm Matthews**  
**ConstructAmesh**

**Bill To:**

**<= Same**

Dear Mr. Matthews:

Thank you for consulting TRI Australasia (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: **ConstructAmesh - Safety Mesh**

TRI Job Reference Number: A16

Material(s) Tested: One Woven Geotextile

Test(s) Requested: UV Resistance (AS 3706.11)

If you have any questions or require any additional information, please call us at (07) 5535 7227.

Sincerely,

Warren Hornsey Pr. Eng.  
Director

**GEOTEXTILE TEST RESULTS**  
**TRI Client: ConstructAmesh**  
**Project: ConstructAmesh - Safety Mesh**

**Material: Safety Mesh Woven Geotextile**  
**Roll Number : A15**  
**TRI Log #: A16**

PARAMETER	TEST REPLICATE NUMBER										MEAN	
	1	2	3	4	5	6	7	8	9	10		
<b>UV Resistance (AS 3706.11)</b>												
												<b>PERCENT RETAINED</b>
MD - Tensile Strength (kN/m) - B	22.4	20.5	20.5	20.2	20.5						20.8	
MD - Tensile Strength (kN/m) - E	24.2	20.8	20.3	25.2	19.6						22.0	106
TD - Tensile Strength (kN/m) - B	14.1	13.8	15.9	12.6	17.5						14.8	
TD - Tensile Strength (kN/m) - E	12.5	14.2	13.2	15.1	20.1						15.0	102
MD - Elong. @ Max. Load (%) - B	45	41	39	44	46						43	
MD - Elong. @ Max. Load (%) - E	46	45	35	46	45						44	101
TD - Elong. @ Max. Load (%) - B	64	69	69	65	75						69	
TD - Elong. @ Max. Load (%) - E	60	57	59	62	74						62	91
B - Baseline Unexposed												
E - Exposed for 500 hours of AS 3706.11 Cycle												
MD Machine Direction      TD Transverse Direction												

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

**END OF REPORT**

February 13, 2015

**Mail To:**

**Malcolm Matthews**  
**ConstructAMesh Pty Ltd**  
24 Maud St  
Newstead  
QLD, 4006

**Bill To:**

**<= Same**

Dear Mr. Matthews:

Thank you for consulting TRI Australasia (TRI) for your geosynthetics testing needs.  
TRI is pleased to submit this final report for laboratory testing.

Project:

**Construct A Mesh**

TRI Job Reference Number:

A15-017

Material(s) Tested:

Safety Mesh Woven Geotextile(s)

Test(s) Requested:

1, Strip Tensile Strength (BS2576)  
1, Attachment Point Strength (BS7955) modified\*

\* width of specimen used in test was reduced from 250mm  
to 200mm

If you have any questions or require any additional information, please call us at  
(07) 5535 7227.

Sincerely,

Warren Hornsey Pr. Eng.  
Director

**GEOTEXTILE TEST RESULTS**  
**TRI Client: ConstructAMesh Pty Ltd**  
**Project: Construct A Mesh**

**Material: Safety Mesh Woven Geotextile**  
**Roll Number : 1**  
**TRI Log #: A15-017**

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	Proj Spec	
	1	2	3	4	5	6	7	8	9	10				
<b>Strip Tensile Strength (BS2576)</b>														
MD - Tensile Strength (N)	901.2	903.5	847.0	966.5	941.0							<b>912</b>	45	<b>&gt; 630</b>
TD - Tensile Strength (N)	1273.5	992.0	1149.4	814.5	728.6							<b>992</b>	226	<b>&gt; 630</b>
<b>Attachment Point Strength (BS7955) modified</b>														
MD - Tensile Strength (N)	1280.2	1412.3	1278.0	1142.2	1018.1							<b>1226</b>	150	<b>&gt;500</b>
TD - Tensile Strength (N)	1506.6	1308.1	1064.9	1406.7	1234.6							<b>1304</b>	169	<b>&gt;500</b>
MD Machine Direction	TD Transverse Direction													

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

编号:2013BRTC01120

No:2013BRTC01120

# 检 验 报 告

## TEST REPORT

试样名称 安全防护网

PRODUCT NAME : Construct Amesh

规格型号 2m×15m

TYPE/MODEL : 2m×15m

委托单位 CONSTRUCTAMESH PTY. LTD

CUSTOMER : CONSTRUCTAMESH PTY. LTD

检验类别

TEST KIND : Sample Test



苏州美标检测技术有限公司检测中心

Suzhou American Standard Detection Technology Co Ltd IQ Center



# 检 验 报 告

## TEST REPORT

试样名称 PRODUCT NAME	安全防护网 Construct Amesh						
型号规格 TYPE/MODEL	2m×15m		样品描述 COLOR	红黑色			
	2m×15m			Red and Black			
检验类别 TEST KIND	委托检验		检验编号 CHECK NUMBER	2013BRTC01120			
	Sample test			2013BRTC01120			
委托单位 CUSTOMER	CONSTRUCTAMESH PTY. LTD		单位地址 UNIT ADDRESS	河北省石家庄市兴凯路 156 号 1-403 室			
	CONSTRUCTAMESH PTY. LTD			UNIT 1, 49 LINKS AVENUE EAGLE FARM, QLD, 4009			
生产单位 MANUFACTURER	滨州金汇网业有限公司		到样日期 SAMPLE DATE	2013. 11. 13			
	CONSTRUCTAMESH PTY LTD			2013. 11. 13			
取样方式 RECEIPT	寄送	送样人 SENDER	张士忠	邮政编码 ZIP CODE	050071	电话号码 TEL.	0311-87080677
	Post		Shizhong Zhang				
检验依据 TEST STANDARD	JG/T239-2009 建筑外遮阳产品抗风性能试验方法						
	JG/T239-2009 External blinds and shutters-Resistance to wind loads-Test methods						
检验日期 TEST DATE	2013.11.19						
	2013.11.19						
检验结论 CONCLUSION							
	Accord						
编写 REPORT MAKER	王佳远		审核 CHECK	杜春秀		批准 APPROVAL	



# 检 验 结 果

## TEST RESULTS

序号 NO.	检验项目 TESTING ITEMS	单位 UNIT	标准要求 SPECIFICATIONS	检验结果 TEST RESULTS	判定 DETERMIN ATION
1	透风率 Ventilation rate	—	<p>在密闭的试验容器内，温度为 23℃，1 个标准大气压，风速为 1m/s-45m/s 下进行，风垂直作用于试样上。</p> <p>In the test container sealed, temperature is 23 °C, 1 standard atmospheric pressure, wind speed is under 1m/s-45m/s, vertical wind acting on the specimen.</p>	—	—
1.1	透风率 Ventilation rate	—	30%~50%	32%	P
备注 REMARKS	<p>测试过程均在技术要求规定的环境条件下进行。</p> <p>The samples were all tested under the required technical environmental condition.</p>				
<p>“单项判断”符号含义：P：检验结果符合要求；F：检验结果不符合要求；N：结果不发生；-：无内容。</p> <p>“P” represents pass;“F” represents failure;“N” represents not happen;“-” represents not content.</p>					

