Talawa Management Pty. Ltd.

5 Fanning Street, Tempe NSW 2044 ABN: 88 149 601 043

Telephone: 02 9559 5477 Mobile: 0404 807 299 Email: talawamanage@yahoo.com.au

Lyta Mesh Quality Assurance Manual

(This Manual also applies to Lyta Screen)

1. ***What is Lyta Mesh:***

Lyta Mesh is a light weight, high tensile, flexible and fire retardant polymer product that is designed for falling objects control measures, and/or non- structural infill of temporary edge protection on building construction sites.

Lyta Mesh is to be used in conjunction with a scaffolding system; it is formed of homogenous polymer materials, including a grid of polymer straps A knitted woven polymer mesh is attached to one side of the grid. The edges of Lyta Mesh have a strip of polymer sheeting attached to the grid with eyelets for ease of attaching.

The material used in the construction of Lyta Mesh has UV protection additive to assist the product to have a longer service lifespan.

2. ***Lyta Mesh Compliance***

The product is compliant with performance requirements of AS/NZS 4576: 1995, AS 2001.2.3.1:2002, AS/NZS 4994.1:2009, AS/NZ 1891.1:2007, and Division 3, Chapter 6, WH&SR 2011, Queensland Government.

3. ***Examination Before In Service***

After the purchase of Lyta Mesh, a check should be made that the "Date of Manufacture" tag is intact. Attached to this "Date of Manufacture Tag" is an "In Service Record Tag". It is to be used for the purpose of notating when the Lyta Mesh is originally put into service and is expressed by month and year. If the date of the beginning of service is not notated, then future testing will not be carried out and therefore a determination cannot be made as to whether Lyta Mesh is strength compliant. The purchaser should keep comprehensive records of when Lyta Mesh is delivered and returned from site.

4. ***Installation***

As a general rule, the installation of Lyta Mesh shall be in accordance with S8.10, AS/NZS 4576: 1995 i.e. each fitting to support not more that 1 sqm of the mesh. Lyta Mesh is designed to be installed using structurally rated steel wire (OD 1.4 mm for steel fixing), heavy duty cable ties or steel spring clips to fix the mesh onto standards, handrail ledgers and knee rail ledgers. Kickboards must be incorporated with Lyta Mesh. Normally and preferably, Lyta Mesh will be located inside the kickboard. Each tie shall carry a sustaining force of at least 500N.

5. *Examination of Lyta Mesh before Re-Use*

Examination must be made of Lyta Mesh before each re-use. If there are any defects, deterioration or debris attached to the Lyta Mesh which give rise to doubt about the recommended performance, then either testing, repairs or cleaning must be carried out before the Lyta Mesh is put back into service or destroyed. Please ensure that all tags attached to Lyta Mesh indicating date of manufacture, in service dates, Safety Codes and Instructions for Use are in place before using on site.

6. *Strength Assurance Testing*

It is recommended that a strength assurance testing session should be carried out for any purchased batch of Lyta Mesh after 20 months of service life. This means after 24 months from the first in service date (from the marking of the month and year on the "in service record tag" (marking to be made by using a knife or other sharpe tools). It does not matter if the mesh was continuously on site in service, or intermittently in service, the users should send at least 3 samples, each from separate rolls, for strength testing.

The manufacturer will offer free testing (purchaser to be responsible for freight to and from testing laboratory in Sydney) for Lyta Mesh that has been in service after 20 months from the first time in service, as indicated by the marking on the tag. A test report will advise the remaining strength against the regulatory threshold, or criteria (e.g. 1.9KN breaking force) and the likely remaining in-service life.

The purchaser should punch a hole or a dent in the month and year on the tag for the ending month and year of in-service life.

At the end of the suggested in-service life of Lyta Mesh, it is the purchaser's responsibility to withdraw the Lyta Mesh from service for falling objects control measures. It could then be used for non-structural infill of temporary edge protection, as to AS/NZS 4994.1995.

7. *Repair*

All repairs undertaken should not be detrimental to the strength or impede the performance of the Lyta Mesh. Repairs should only be carried out using materials that are compatible with the original Lyta Mesh.

8. *Site Inspection*

After erection on site, regular site inspections must be made to ensure that Lyta Mesh :

a) anchor points are still intact;
b) there are no distortions in the line or the appearance of Lyta Mesh;
c) that the Lyta Mesh has not been used to arrest a fall or loaded in any way (this will usually show as a localised deformation in the mesh);
d) that the mesh is clear of debris and if any debris has damaged the mesh in anyway;
e) that no cuts have been made to the grid, which could compromise the strength integrity of the mesh. Where this is the case, the mesh should be immediately withdrawn from service until repaired or discarded.

The following conditions may also affect the integrity of Lyta Mesh while in use:

a) sparks from welding, grinding and burning operations, hot gases from blow lamps, hot ash from chimneys/furnaces etc.;
b) chemical contamination by caustic or harmful substances;
c) adverse wind conditions;
d) significant loading or impact;
e) handling misuse.
f)

The following mechanical damage may also affect the integrity of Lyta Mesh:

a) dragging over rough surfaces;
b) contact with sharp objects;
c) accumulation of debris in the netting;
d) persons jumping or throwing objects into the net;
e) being struck by a moving load;

Special care and precautions should be taken to protect the net when exposed to any of the above conditions.

9. ***Storage***

After returning from site, Lyta Mesh should be examined for any faults, debris etc. and repaired and cleaned before re-rolling. Records should be amended to notate the time erected on site. When not in use, Lyta Mesh should be rolled and stored under cover and protected from weather and sunlight.

Lyta Mesh should generally:

a) be stored in dry conditions;
b) be protected against UV light;
c) not be housed close to sources of excessive heat;
d) not to be stored in places where it could come into contact with aggressive substances (eg. acid, dyes, solvents, oils, paints)

Correct installation and care will assist in keeping Lyta Mesh in service life for a longer period.

Tensile Breacking Force Testing

Test Standard *AS2001.2.3.1-2001* Testing Date: *25/03/2014*

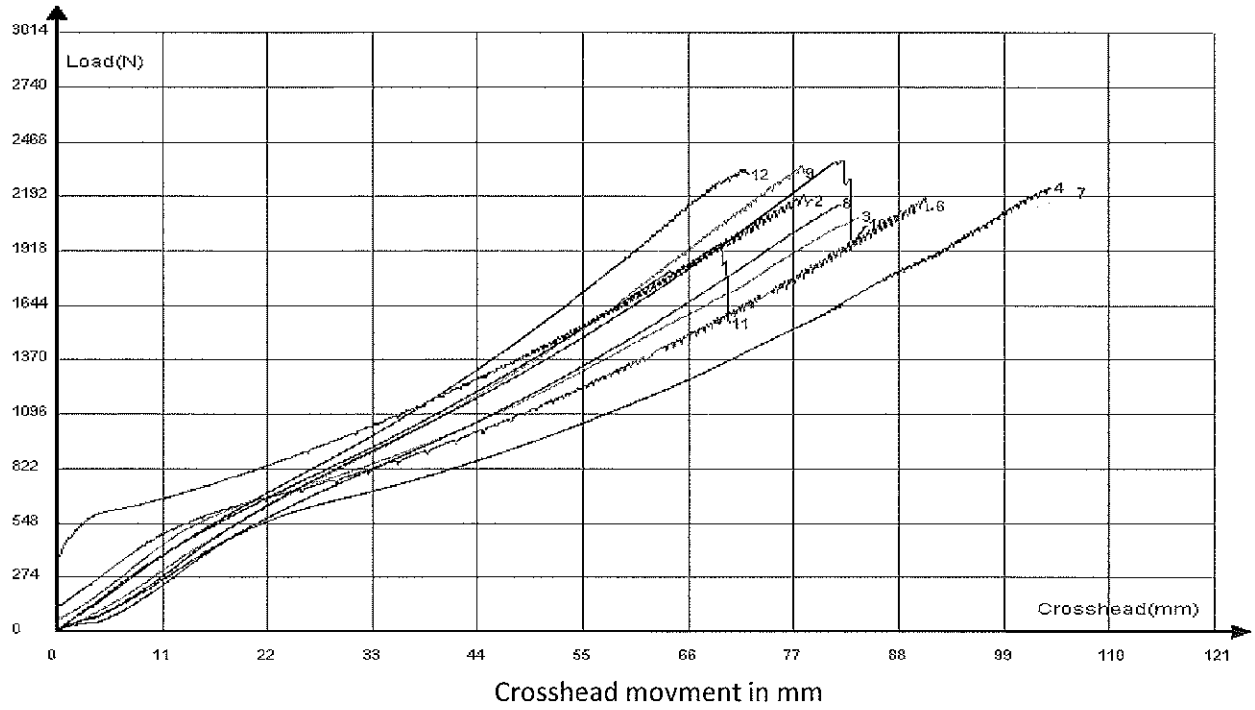
Thickness of specimen Width of specimen Lengths of speciment

1.0 mm *10 mm* *100 mm*

Testing Product: *LYTA mesh (Green), 30 months weathering*

Testing Location: *Sydney*

Test	Specimen	Breacking Force	Direction of Strips	Location of Breacking
		KN		
Test 1	N/A	N/A	N/A	Setup fails, No Test conducted
Test 2	TL1	2.200	Weft	Middle between jaws
Test 3	TL2	2.089	Weft	Break 30mm from jaws
Test 4	TL3	2.236	Weft	Middle between jaws
Test 5	N/A	N/A	N/A	Setup fails, No Test conducted
Test 6	TL4	2.192	Weft	Middle between jaws
Test 7	TL5	2.212	Weft	Middle between jaws
Test 8	TL6	2.154	Warp	Middle between jaws
Test 9	TL7	2.347	Warp	Middle between jaws
Test 10	TL8	2.372	Warp	Middle between jaws
Test 11	TL9	1.954	Warp	Break 20mm from jaws
Test 12	TL10	2.326	Warp	Middle between jaws
Average:		**2.2082**		



Tester: Audit: Page 1

Certificate of Test

NE6632 REPORT No.: FNE10516

AS/NZS 1530.3:1999 SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE

TRADE NAME: Lyta Mesh

SPONSOR: Talawa Management Pty Ltd
6 Gatwood Close
PADSTOW NSW
AUSTRALIA

DESCRIPTION OF SAMPLE: The sponsor described the tested specimen as scaffolding protection mesh made from long polyethylene-terephthalate (PET) fibre knitted grid, 50 mm x 50 mm centres and coated with PVC. A polyethylene (PE) shade cloth netting is sewn onto one side of the PET grid. The specimen contained flame retardant additives.

Nominal total thickness:	1.0 mm
Nominal total mass:	700 g/m²
Colour:	blue

TEST PROCEDURE: Nine samples were tested in accordance with Australian Standard 1530, Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was held between two layers of square mesh having 0.8-mm dia. wires at approximately 13-mm centres over each face, and was clamped to the specimen holder in four places.

OBSERVATIONS: Due to variable behaviour, nine specimens were tested, as required by Clause 2.8 of AS/NZS 1530.3:1999. Some flashing occurred on the samples prior to ignition. Of the nine specimens that ignited, only six emitted a rise of 1.4 kW/m² in the prescribed period.

RESULTS: The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (min)	4.3	0.1
Flame Spread Time (s)	44.7	13.6
Heat Release Integral (kJ/m²)	150.2	27.5
Smoke Release ($log_{10}D$)	-0.118	0.053

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
16	8	6	7

The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

DATE OF TEST: 23 April 2012
Issued on the 24th day of April 2012 without alterations or additions.

Heherson Alarde
Testing Officer

Garry E Collins
Manager, Fire Testing and Assessments

NATA

This document is issued in accordance with NATA's accreditation requirements.
Accreditation No. 165 – Corporate Site No. 3625

CSIRO

CSIRO Materials Science and Engineering
14 Julius Avenue, Riverside Corporate Park, North Ryde NSW 2113 AUSTRALIA
Telephone: 61 2 9490 5444 Facsimile:61 2 9490 5555