



Our ref: FCO-2761/CO3811

Rain Harvesting Pty. Ltd.  
28-34 Reginald Street  
ROCKLEA QLD

Attention: Ms Tracey Thompson

LIKELY PERFORMANCE OF METAL GUTTER MESH WHEN ASSESSED TO THE  
NON-COMBUSTIBILITY DEFINITION OF AS 3959-2009  
Assessment Number FCO-2761  
Your letter of 2 September 2009

#### INTRODUCTION

We have examined the information referenced by you on the likely fire performance of your metal based gutter mesh products, when assessed to the criteria of Clause 1.5.19 of AS 3959-2009. The information included

- Certificate of Test no. FNE 9513, FNE 9514, FNE 9515, FNE 9550, and FNE 9551, tested on 4 September 2009, 8 September 2009, 8 September 2009, 8 October 2009, and 8 October 2009 respectively;
- Australian Standard 3959: Construction of buildings in bushfire prone areas, 2009;
- Australian Standard 1530: Method for fire tests on building materials, components and structures, Part 1: Combustibility test for materials, 1994;
- Australian/New Zealand Standard 1530, Methods for fire tests on building materials, components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999;
- Fire Protection Handbook, Nineteenth Edition, Volume II; and
- Building Code of Australia, 2009.

We have retained this documentation.

#### ANALYSIS

In the definitions AS 3959-2009, Clause 1.5.19 defines non-combustible as either 'Not deemed combustible as determined by AS 1530.1 or not deemed combustible in accordance with the BCA.'

Specification C1.12 (e) of the Building Code of Australia (BCA), 2009, states that 'Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0' may be used wherever a non-combustible material is required.

The Spread-of-Flame Index as defined in the BCA is derived from testing to AS/NZS 1530.3. Your 'Blue Mountain All Steel Gutter Mesh Super', 'Blue Mountain All Steel Gutter Mesh - Standard', 'Blue Mountain Aluminium Gutter Mesh', 'Blue Mountain Aluminium Mesh' and 'Aluminium Sheets' products were tested to AS/NZS 1530.3:1999. The results were reported in Certificate of Test no. FNE 9513, FNE 9514, FNE 9515, FNE 9550, and FNE 9551, tested on 4 September 2009, 8 September 2009, 8 September 2009, 8 October 2009, and 8 October 2009 respectively. All the products achieved a Spread-of-Flame Index of '0'.

Your gutter mesh products are manufactured from either steel or aluminium. To deem a material combustible when tested to AS 1530.1, the material is tested in a tube furnace at 750°C. Table 8.16.1 of the Fire Protection Handbook indicates that neither of these metals in solid state will ignite at this temperature. Consequently, the steel and aluminium base of these would not be deemed combustible when tested to AS 1530.1 and would meet the definition of non-combustible in the Building Code of Australia.

#### OPINION/CONCLUSION

Based on the factors detailed previously it is the assessment of the Division that your 'Blue Mountain All Steel Gutter Mesh Super', 'Blue Mountain All Steel Gutter Mesh - Standard', 'Blue Mountain Aluminium Gutter Mesh', 'Blue Mountain Aluminium Mesh' and 'Aluminium Sheets' products meet the definition of non-combustible according to AS 3959-2009, Clause 1.5.19, and may be used where non-combustible materials are required.

#### TERM OF VALIDITY

This assessment report will lapse on 31 October 2014. Should you wish us to re-examine this assessment with a view to the possible extension of its term of validity, would you please apply to us three to four months before the date of expiry. This Division reserves the right at any time to amend or withdraw this report in the light of new knowledge.

Yours faithfully



Russell Collins  
For Manager, Fire Testing and Assessment

14 October 2009