

April 03, 2019

Mr. Steve Marskell
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Australia

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Re: Project # 176216.R
Standards Equivalence

Dear Mr. Marskell:

The purpose of this letter is to compare similitudes between the standards listed within the *Evaluation Report for MGO No. CMI-ER3100R-2*, dated May 2016 and American Standards Testing Methods (ASTMs).

Based on our initial evaluation and code interpretation, below you will find a table with two columns containing the original and the most equivalent or similar ASTM (or other) standard(s).

ORIGINAL STANDARD	STANDARDS SIMILAR OR EQUIVALENT
BS 476-22:87 (Part 22 Section 5), testing also conducted to BS 476-20 Fire Tests on building and structures, Part 22 methods for determination of the fire resistance of non-load bearing elements of construction	ASTM E119 Standard test methods for fire tests of building construction and materials ASTM E84 Standard test method for surface burning characteristics of building materials
EN 12467:12 (Section 5.4.5 & 7.3.3) Fiber cement flat sheets-product specification and test methods	ASTM E96 Standard test methods for water vapor transmission of materials
EN 317:93 Determination of swelling in thickness after immersion in water	ASTM C1185 Standard test methods for sampling and testing Non-Asbestos fiber-cement flat sheet, roofing and siding shingles, and clapboards
EN 12467:12 (Section 5.5.2, 5.5.3, 5.4.6, 7.3.4, 7.4.1, 7.4.2) Fiber cement flat sheets-product specification and test methods	ASTM E2485 Standard test method for freeze/thaw resistance of exterior insulation and finish systems (EIFS) and water resistive barrier coatings

<p>AS/NZS 3837 Method of test for heat and smoke release rates for materials and products using an Oxygen consumption calorimeter</p>	<p>ISO 5660-1 Reaction-to-fire-tests- heat releases, smoke production and mass loss rate, Part 1: Heat release rate (cone calorimeter method) ASTM E1354 Standard test method for heat and visible smoke release rates for materials and products using an Oxygen consumption calorimeter ASTM E162 Standard test method for surface flammability of materials using a radiant heat energy source EN 13501-1 Fire classification of construction products and building elements- Part1: Classification using data from reaction to fire tests AS 1530 Methods for fire tests on building materials, components and structures</p>
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This assessment is based on similarities found within the protocol's goals and methods. TI RADCO is not certifying the complete equivalence. TI RADCO provides this evaluation letter as a client request to help and guide Magnesium Oxide Board Corporation with the required international test standards such as ASTM that may be required to get their product approved in the North America market.

To claim complete equivalence, the results of both tests must be supported by statistical methods to ascertain whether the test results from the old and new sources are valid. The results should be close enough to be considered fully equivalent.

TI RADCO is a nationally recognized Independent Third-Party Testing, Listing, and Inspection Agency for building systems and materials and is recognized by the Design Approval & Plan Inspection Agency (DAPIA) for manufactured and modular homes and buildings.

RADCO's key personnel have served as expert witnesses on numerous legal cases dealing with building system(s) performance, code interpretations, gas appliances and other applications.

Sincerely,

T I R A D C O, LLP

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