

CONSULTANTS ADVICE				Fire Safety
Project Name:	Hercules Street Chatswood		CONSULTANTS	002
Project No:	P2016.143		ADVICE NO.	
Client:	Taylor		Issued for: Information	
Doc. Reference:	CA2016.143 1B		Date:	25 September 2018
From:	Daniel Levy	dlevy@fahrenheitglobal.com		Page 1 of 2
To:	Cc:	Company	Person	Fax/Email
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Taylor	Jack Geale	jackg@taylorau.com.au
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Taylor	Jason Ho	jasonh@taylorau.com.au
SUBJECT: HERCULES ST CHATSWOOD Protecta Wall Fast wall				

Dear Jason,

As requested I have reviewed the documentation regarding the use of the Protecta-Wall Fast Wall System within the basement carpark area of the above subject project and have the following comments:

Note:

NCC/BCA Specification C1.10 Fire Hazard Properties¹ Clause 4-Wall and Ceiling linings, specifies that a material used as a wall or ceiling lining must be a Group 1, Group 2 or Group 3 material and used in accordance with Spec C1.10 Table 3. A material's group number² is determined by testing the material in accordance with AS 5637.1. For the purpose of the BCA, a Group 1 material indicates the best performing material and a Group 4 material is the worst performing material

The fire hazard properties of the Protecta Wall lining system are therefore required to comply with the group number specified in Table 3 of Specification C1.10 for Class 7a (carpark) buildings, other areas or public corridors

The allowable material group number differences are based on the building classification and the location of the material in the building. It is also dependant on whether the building contains a sprinkler system in accordance with Specification E1.5, and whether the material is used as a wall lining or a ceiling lining

Spec C1.10 Clause 4(a) contains requirements dealing with a material's smoke development rate. These requirements are irrelevant in this specific building as the building is fully sprinkler protected in accordance with BCA Spec E1.5. These requirements only apply where the wall and/or ceiling lining material is installed within a building that does not have a sprinkler system.

¹ **Fire hazard properties** means the following properties of a material or assembly that indicate how they behave under specific fire test conditions:

- (a) Average specific extinction area, critical radiant flux and Flammability Index, determined as defined in A1.1.
- (b) Smoke-Developed Index, smoke development rate and Spread-of-Flame Index, determined in accordance with Specification A2.4.
- (c) Group number and smoke growth rate index (SMOGRARC), determined in accordance with Specification C1.10.

² **Group number** means the number of one of 4 groups of materials used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling



Assessment 1 :

1. In order for the test report issued by SGS (Ref No.SHMR120302258) to be acceptable, the testing laboratory is required to be recognised as an Accredited Testing Laboratory as specified in Part A2 Acceptance of design and construction – clA2.2(a)(iv) Evidence of suitability.
 - The test report presented to our office is incomplete as there are additional pages to the test. At the end of page 2 the report states “***to be continued***”
 - The reviewed test results were carried out by a Laboratory outside of Australia (China), so in order to comply with these requirements, the SGS laboratory is required to show proof that it is an organisation accredited by the National Association of Testing Authorities (NATA) to undertake the relevant tests.
 - Alternatively, the SGS lab is accredited to undertake the relevant tests by an authority, recognised by NATA through a mutual recognition agreement;

This test report cannot be accepted

Assessment 2:

2. The AWTA Product Testing (NATA Accreditation Number 1356) Test report (Test No:17-000233) issued 09/02/2017, states that the tests were performed in accordance with AS/NZS 3837-1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter.

The Group number Assessment of the above tests (in accordance with AS5637.1-2015), are:

- | | |
|---|-------------------------|
| • <u>The Product Group Number Classification</u> | <u>3</u> |
| • Average specific Extinction Area | 513.6m ² /kg |
| • The Average Heat Release Rate (Mean result) | 52.0 kW/m ² |

Conclusion:

Based on the test results carried out by AWTA Product Testing (Test report No:17-000233) issued 09/02/2017 I confirm that the product group number classification is **three (3)** and therefore the Protecta-Wall Fast Wall System **is suitable for use** as wall or ceiling lining material within the carpark.

The above tested material Protecta-Wall Fast Wall System **is unsuitable for use** within a Fire isolated exit and the fire control room

Yours Sincerely

Daniel Levy
Fire Safety Engineer
MEng(Fire), GradDip(FireInv), B.Tech(CivEng), AIAMA, AMIEAust, MIFire
C10- Accredited Certifier, NSW (Fire Safety Engineering) BPB1802