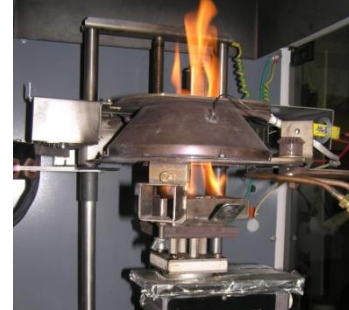




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FIRE ASSESSMENT REPORT

FAR 4659 ISSUE 2

ASSESSMENT REPORT ON FIRE PERFORMANCE OF KNAUF PLASTERBOARD LINING PRODUCTS

CLIENT

Knauf Plasterboard Pty Ltd
31 Military Road
Matraville
NSW 2036
Australia

PROJECT NUMBER:

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PAGE:

1 of 9

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ASSESSMENT OBJECTIVE

This report gives the BRANZ assessment of the group number classification in accordance with AS 5637.1:2015 Determination of Fire Hazard Properties, for products tested in accordance with AS/NZS 3837:1998.

CLIENT

Knauf Plasterboard Pty Ltd
31 Military Road
Matraville
NSW 2036
Australia

PRODUCT

Various Knauf Plasterboard Pty Ltd products as detailed in Table 1.

CONCLUSION

For the purposes of compliance with the National Construction Code (NCC) Volume One Specification C1.10 Clause 4 determined in accordance with AS 5637.1:2015, the following classifications are considered applicable to the systems as summarised in detail in the table below.

Test ID	Description	Group Number Classification	Average Specific Extinction Area (m ² /kg)
FH 3398	Mastashield	1	Less than 250
FH 3399	Spanshield	1	Less than 250
FH 3401	Spangrid – Vinyl-faced	2	Less than 250
FH 3406	Watershield	1	Less than 250
FH 3407	Soundshield	1	Less than 250
FH 3478	Fireshield	1	Less than 250
FH 3479	Multishield	1	Less than 250
FH 3481	Soundshield	1	Less than 250
FH 3552	Spangrid – Paper-faced	1	Less than 250
FH 3554	Curveshield	1	Less than 250
FH 4277	Impactshield	1	Less than 250
FH 4306	Spangrid - Polyolefin	2	Less than 250
FH 4767	Sonarock	1	Less than 250
FH 4768	Designpanel	1	Less than 250
FH 4769	Stratopanel	1	Less than 250



REPORT NUMBER: **FAR 4659 ISSUE 2** ISSUE DATE: **21 March 2019** PAGE: **2 of 9**



FH 4770	Permarock	1	Less than 250
FH 4793	Contrapanel	1	Less than 250
FH 5397	Opal	1	Less than 250
FH 5398	Trurock	1	Less than 250
FH 5807	Plaza	1	Less than 250
FH10759-1	Shaft Liner	1	Less than 250
FH10759-1	Intershield	1	Less than 250

LIMITATION

This report is subject to the accuracy and completeness of the information supplied.

BRANZ reserves the right to amend or withdraw this assessment if information becomes available which indicates the stated fire performance may not be achieved.

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TERMS AND CONDITIONS

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REPORT NUMBER:	ISSUE DATE:	PAGE:
FAR 4659 ISSUE 2	21 March 2019	3 of 9



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CONTENTS

SIGNATORIES	5
DOCUMENT REVISION STATUS	5
1. INTRODUCTION	6
2. BACKGROUND	6
3. TESTS SUMMARY	6
4. DISCUSSION	7
4.1 Specimen suitability	7
4.2 Determination of Group Number Classification by prediction.....	8
4.3 Determination of Average Specific Extinction Area.....	8
5. CONCLUSION.....	8

TABLES

Table 1: Summary of test specimens and their reported results	6
Table 2: Summary of assessed performance in accordance with AS 5637.1:2015	8



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DOCUMENT REVISION STATUS

ISSUE NO.	DATE ISSUED	DESCRIPTION
2	21 March 2019	Updated Knauf product list
1	31 March 2017	Initial Issue



REPORT NUMBER:	ISSUE DATE:	PAGE:
FAR 4659 ISSUE 2	21 March 2019	5 of 9

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1. INTRODUCTION

This report gives the BRANZ assessment of the Group Number Classification in accordance with AS 5637.1:2015 Determination of Fire Hazard Properties, for products tested in accordance with AS/NZS 3837.

2. BACKGROUND

In BRANZ Test Reports FH 3396, FH 3399, FH 3401, FH 3406, FH 3407, FH 3478, FH 3479, FH 3481, FH 3552, FH 3554, FH 4276, FH 4277, FH 4306, FH 4767, FH 4768, FH 4769, FH 4770, FH 4793, FH 5397, FH 5398, FH 5807 and FH10759-1 a range of products were subjected to testing in accordance with AS/NZS 3837 and Group Number Classification numbers were determined for each in accordance with Specification C1.10A of the Building Code of Australia (BCA) 2005.

3. TESTS SUMMARY

Many of the reports referenced in Table 1 were issued under Lafarge Product names. In some cases, Knauf have rebranded the products and these are used in this report

Table 1: Summary of test specimens and their reported results

Test ID	Knauf product name	Group number classification	Average Specific Extinction Area (m ² /kg)
FH 3398	Mastashield	1	9.3
FH 3399	Spanshield	1	14.6
FH 3401	Spangrid – Vinyl-faced	2	99
FH 3406	Watershield	1	13.2
FH 3407	Soundshield	1	15
FH 3478	Fireshield	1	19.5
FH 3479	Multishield	1	27.8
FH 3481	Soundshield	1	23.2
FH 3552	Spangrid – Paper-faced	1	13.5
FH 3554	Curveshield	1	20.1
FH 4277	Impactshield	1	17.1
FH 4306	Spangrid - Polyolefin	2	52.1
FH 4767	Sonarock	1	5.6
FH 4768	Designpanel	1	18.8
FH 4769	Stratopanel	1	28.9
FH 4770	Permarock	1	24.6



FH 4793	Contrapanel	1	28.3
FH 5397	Opal	1	16.7
FH 5398	Trurock	1	17.6
FH 5807	Plaza	1	11.6
FH10759-1	Shaft Liner	1	27.7
FH10759-1	Intershield	1	38.8

4. DISCUSSION

The objective of AS 5637.1:2015 is to provide means for the determination of specimen suitability for testing in accordance with AS/NZS 3837 and the group number, smoke growth rate index (SMOGR_{RC}) and, where required, average specific extinction area (ASEA) as required by the National Construction Code of Australia (NCC) 2016.

4.1 Specimen suitability

Only materials for which there are correlations between cone calorimeter results and room test results shall be tested in the cone calorimeter for the purpose of determining a group number.

Unsuitable materials

The empirical correlations shall not be used for products or assemblies –

- a) With profiled facings not allowed by AS/NZS 3837;
- b) That contain materials that melt or shrink away from a flame;
- c) With joints or openings; and
- d) With a reflective surface

Suitable materials

Materials for which the correlation is permitted include –

- a) Painted or unpainted paper-faced gypsum plasterboard;
- b) Solid timber and wood products such as particleboard and plywood; and
- c) Rigid non-thermoplastic foams such as polyurethane.

In the above tests listed in Table 1, the specimens comprised a variety of different linings. In the specimens being considered in this assessment, the combustible components are the paper, vinyl and plastic facings. None of the tested specimen were observed to melt away from a 50 kW heat source during the test procedure and would be considered suitable for Group Number Prediction in accordance with AS 5637.1:2015.



4.2 Determination of Group Number Classification by prediction

The procedure for determining the Group Number Classification, as documented in AS 5637.1:2015, is identical to the procedure used for Group Number prediction in the test reports listed in Table 1. Therefore, Group Numbers as determined in previous test reports are valid to the assessed products within this report and are provided in Table 2.

4.3 Determination of Average Specific Extinction Area

The procedure for determining the average specific extinction area in accordance with AS 5637.1:2015 is identical to that of AS/NZS 3837:1998. The average specific extinction area was calculated in accordance with AS 5637.1:2015 for all products listed in Table 2.

5. CONCLUSION

It is considered that for the purposes of compliance with the National Construction Code (NCC) of Australia, the following classifications in Table 2 are considered applicable to the systems as described in Section 1.

Table 2: Summary of assessed performance in accordance with AS 5637.1:2015

Test ID	Description	Group Number Classification	Average Specific Extinction Area (m ² /kg)
FH 3398	Mastashield	1	Less than 250
FH 3399	Spanshield	1	Less than 250
FH 3401	Spangrid – Vinyl-faced	2	Less than 250
FH 3406	Watershield	1	Less than 250
FH 3407	Soundshield	1	Less than 250
FH 3478	Fireshield	1	Less than 250
FH 3479	Multishield	1	Less than 250
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FH 3554	Curveshield	1	Less than 250
FH 4277	Impactshield	1	Less than 250
FH 4306	Spangrid - Polyolefin	2	Less than 250
FH 4767	Sonarock	1	Less than 250
FH 4768	Designpanel	1	Less than 250
FH 4769	Stratopanel	1	Less than 250
FH 4770	Permarock	1	Less than 250
FH 4793	Contrapanel	1	Less than 250



FH 5397	Opal	1	Less than 250
FH 5398	Trurock	1	Less than 250
FH 5807	Plaza	1	Less than 250
FH10759-1	Shaft Liner	1	Less than 250
FH10759-1	Intershield	1	Less than 250



REPORT NUMBER:	ISSUE DATE:	PAGE:
FAR 4659 ISSUE 2	21 March 2019	9 of 9

LFH <i>LFH</i>

PCRC <i>PCRC</i>

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