NZBC Fire Group Numbers using Briggs' veneers and Flameblock FRMDF

NZ Fire Group Number	Board Substrate	Substrate thickness	Surface veneers	Notes
1S	FLAMEBLOCK FRMDF	6mm to 25mm	None	Raw Flameblock 6mm & 9mm is EU Bs2,12mm to 30mm is EU Bs1. These correspond to NZ Group Number 1S*. Please contact us for EU fire certificates
2	FLAMEBLOCK FRMDF	12mm to 25mm	All natural, Woodstock dyed & TrueGrain re-constituted veneers of density 755kg/m3 and less, as per attached list.	Room burn tested to ISO 9705. Please contact us for a copy of the Assessment Report 23754 R5.0
2S	FLAMEBLOCK FRMDF	12mm	American White Oak	Room burn tested to ISO 9705. Please contact us for a copy of the Test Report RTF190015.1
2S	FLAMEBLOCK FRMDF	12mm	TrueGrain Black Onyx	Room burn tested to ISO 9705. Please contact us for a copy of the Test Report RTF190014.1
2S	FLAMEBLOCK FRMDF	12mm	Hoop Pine	Room burn tested to ISO 9705. Please contact us for a copy of the Test Report RTF180222.1
1S	BLACK FLAMEBLOCK	12mm to 18mm	None	Raw Black Flameblock 12mm to 18mm is EU Bs1. This corresponds to NZ Group Number 1S*. Please contact us for EU fire certificate

* Please refer to attached document "Achieving NZBC Group Numbers for surface finishes from tests to overseas standards"

All Briggs veneers and Flameblock FRMDF can be ordered through your board presser/panel layer.

These Group Numbers only apply to flat, unslotted, nonrouted panels. Note that we are not qualified to advise what Fire Group Numbers are required for your application - please seek the advice of a Fire Engineer Consultant or Building Certifier.

It is the responsibility of the user of this information to ensure that all the products that they are applying this information to, are as described/named in the Briggs Assessment Reports. Briggs Veneers accepts no responsibility if our products are substituted. Please do not put any of our Reports on any website as they are the property of Warrington Fire.

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BRIGGS' VENEERS on 12mm+ FLAMEBLOCK FRMDF which reach NZBC FIRE GROUP 2

ReToned Dyed Veneer of thickness 0.6mm or less, made with species of density 755kg/m3 and less, including but not limited to:

Raven	Dutch Tulipwood	Macchiato Tay
Shale	Flinders Oak	Mocha Tay
Aubergine Tay	Ghost Anegre	Naples Ash
Black Tulipwood	Grey Birch	Pewter Oak
Brown Ash	Gunmetal Birch	Platinum Ash
Charcoal Tay	Lichen Tulipwood	Spanish Tulipwood
Chocolate Tay		

Natural Timber Veneer of thickness 0.6mm or less, made with species of density less than or equal to 755kg/m3, including but not limited to:

Acacia, Rose	Eucalypt, Teardrop	Oak, Silky
Alder, Rose	Eucalypt, Smoked	Oak, Plantation (Plantation Southern Blue Gum)
Anegre	Fir, Douglas (“Oregon”)	Oak, Smoked
Anegre, Figured	Gum, Red Heart	Oak, Tasmanian
Ash Burr	Gum, Rose	Padouk
Ash Olive Burl	Koto	Pearwood
Ash, Mountain	Leatherwood	Pine, Baltic
Ash, Silver	Mahogany, Brazilian	Pine, Birds Eye
Ash, Tasmanian	Mahogany, Khaya	Pine, Celery Top
Ash, Victorian	Mahogany, Pomelle	Pine, Hoop
Ash, White	Makore	Pine, Huon
Avodire, Figured	Makore, Figured	Pine, Kauri
Beech, Curly	Makore, Pomelle	Pine, Radiata
Beech, European	Maple Burl	Rimu, Coloured Heart
Beech, Unsteamed	Maple, Birds Eye	Rimu, Pale
Beech, Red	Maple, Curly	Rosewood, New Guinea
Beech, Silver	Maple, Figured Qld	Sapele
Birch, Australian White	Maple, Figured Rock	Sapele, Pomelle
Birch, Canadian Red	Maple, Queensland	Sassafras, Black Heart
Birch, Curly	Maple, Quilted	Sassafras, Golden
Birch, European	Maple, Rock	Sen, Japanese
Birch, Masur	Meranti	Sycamore, Figured
Birch, Quilted European	Myrtle Burl, American	Sycamore, Queensland
Blackwood, Birds Eye	Myrtle Burr, Tasmanian	Sycamore, White
Blackwood, Tasmanian	Myrtle, Birdseye	Tawa
Calantas	Myrtle, Figured Tasmanian	Tea Tree
Cedar, Australian	Myrtle, Flame	Vitex
Cedar, Western Red	Myrtle, Southern	Walnut Burr
Cherry, American	Myrtle, Tasmanian	Walnut, American
Cherry, European	Nyatoh	Walnut, New Guinea (“Pacific Walnut”)
Cherry, Queensland	Oak Burr	Walnut, Queensland
Coachwood, NSW	Oak, American White	Walnut, Silky
Elm Burr	Oak, European	Wattle, Silver
Elm, European	Oak, Figured Tasmanian	
Elm, Red	Oak, Rift	

TrueGrain Reconstituted Dyed Veneers of thickness 0.55mm or less made from Ayous (Obeche) or Poplar, including but not limited to:

TrueGrain Anthracite	TrueGrain Dove	TrueGrain Maize
TrueGrain Biscotti	TrueGrain Dusk	TrueGrain Marzipan
TrueGrain Black Gold	TrueGrain Ebony Vogue	TrueGrain Mocha
TrueGrain Black Onyx	TrueGrain Ghost Ash	TrueGrain Oatmeal
TrueGrain Bouchon	TrueGrain Heather	TrueGrain Pebble
TrueGrain Burnt Wood	TrueGrain HoneySuckle	TrueGrain Pinecone

BUILDING PERFORMANCE

Achieving NZBC Group Numbers for surface finishes from tests to overseas standards

You can find requirements for internal surface finishes in Clause 3.4(a) of the New Zealand Building Code.

Published on 1 March 2015 1st edition

Of interest to:

Building consent authorities, Designers

The requirements are given as group numbers, which is the performance under the conditions described in ISO 9705:1993 'Fire tests - The full scale room test for surface products'.

The Group Number is a numeric representation of the performance achieved during the test and is used as a standardised benchmark for the assessment of surface finish performance. The Group Number requirements are repeated within the Acceptable Solutions C/AS1C/AS7 relevant to each risk group.

The fire test procedure for establishing the Group Number is based on either:

a. ISO 9705, which is a full scale room corner test,or
b. ISO 5660, which is a bench scale fire test on a small sample of the material.

The Group Number 14 (least to most combustible) provides a hierarchy for the risk of the spread of flame across the surface finish based on the measured or predicted 'time to flashover' in the ISO 9705 test.

In Australia and Europe the same general hierarchy of risk for surface flame spread for finishes is used. While differences exist in the smallscale or intermediatescale fire test methods adopted in the different jurisdictions, the resulting classifications are considered to be sufficiently similar to the Group Number requirements of NZBC Clause 3.4(a) such that the results can be used directly for the purpose of compliance with Clause C3.4 of the New Zealand Building Code.

In Australia the Group Numbers are derived from AS ISO 9705:2003 which is an identical reproduction of ISO 9705:1993.

In Europe, the reaction to fire, of construction products and materials are classified using the criteria and test methods described in EN 135011:2007+A1:2009. The classification levels are A1, A2, B, C, D, E and F, from least to most combustible.

The Single Burning Item (SBI) as described in EN 135011:2007+A1:2009 is a test method for determining the reaction to fire behaviour of building products when exposed to the thermal attack by a propane burner. The results of this test, using a Fire Growth Rate (FIGRA ratio) have been correlated for MBIE to the ISO 9705 Group Numbers and the requirements of NZBC Clause 3.4(a) in the same manner as the ISO 5660 cone calorimeter test.

The corelation of wall and ceiling surface finishes derived from Australian or European classifications to the Group Number requirements of NZBC Clause 3.4(a) can, without the need for further testing, be taken as described in the following table.

New Zealand Group Number according to NZBC Clause C3.4(a) using ISO 9705:1993	**Australian Group Number according to NCC Specification C1.10 Clause 4 using AS ISO 9705:2003**	**European Classification using to EN 13501-1:2007+A1:2009**
Group Number 1S	Group 1, and a smoke growth rate index not more than 100	Class A1, A2 or B and Smoke production rating s1 or s2
Group Number 1	Group 1	Class A1, A2 or B
Group Number 2S	Group 2, and a smoke growth rate index not more than 100	Class C and Smoke production rating s1 or s2
Group Number 2	Group 2	Class C
Group Number 3	Group 3	Class D
Group Number 4	G	Class E and F

Some products, especially those from Australia, may have been tested to AS/NZS 3837. This is the same test as ISO 5660 but with different endoftest criteria, which means for some materials this may affect the assessment of a Group Number.

A test result for a material or coating applied to a particular substrate may also be used for the same material or coating applied to another substrate of the same or less reactive type (refer Table A2 within Verification Method CNM2) provided the new substrate is of equal or greater density. For solid timber, the material or coating may be used on other solid timber of equal or greater density and thickness.

All guidance related to Cl Objectives of Clauses C2 to C6 (https://www.building.govt .nz/ buildingcode• compliance/cprotect ionfrom-fire/cclausesc1c6/)

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

New Zealand Government

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