Certificate of Conformity

Certification Body:

CMI CERTIFICATION
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Certificate Holder:

Stoddart Group Pty Ltd
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Certificate number: CM40283 Rev1

THIS IS TO CERTIFY THAT

Low Rise Multi-Residential & Commercial 75mm STAAC FLOOR®

Type and/or use of product:

STAAC FLOOR® is certified as a floor sheeting element installed onto steel or timber joists forming a platform flooring system.

Description of product:

75mm floor substrate supported by joist. Refer A3 for details.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S) **BCA 2022**

	Volume One		Volume Two	
Performance Requirement(s):	B1P1(1), (2)(a) (b), (c) & (d)	Structural reliability – Subject to *Limitation and Condition No. 1*.	H1P1(1), (2)(a), (b), (c) & (d)	Structural reliability and resistance – Subject to *Limitation and Condition No. 1*.
	F7P1	Sound transmission – Floors. Can be used in conjunction with other building elements to provide insulation against the transmission of airborne and impact generated sound sufficient to prevent illness or loss of amenity to the occupants. Refer A3.		
Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire-Resisting Construction – Can be used in conjunction with other Fire-Resisting Construction to achieve an FRL floor not exceeding 90/90/90. Refer A3 and Limitation and Condition No. 5.	H3D2	Non-combustible building elements – Limited to the STAAC Floor 75® Panel only
	C2D10	Non-combustible building elements – Limited to the STAAC Floor 75® Panel only	H3D5	Separating Floors – Can be used in conjunction with other Fire-Resisting Construction to achieve an FRL Separating Floor not exceeding 90/90/90. Refer A3 and Limitation and Condition No. 5.
	J4D7	Energy Efficiency – Floors. Can be used in conjunction with other building elements to achieve a Total R-Value. Refer A3.	H6D2(1)(b)(i)	Energy efficiency – Floors. Can be used in conjunction with other building elements to achieve a Total R-Value. Refer A3.
State or territory variation(s):	Part F7 (NT)		Not Applicable	

Richard Donarski – CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 13/09/2023

Date of expiry: 19/05/2024

Certificate of Conformity

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

Building classification/s:

Class 1,2,3,4,5,6,7,8,9 & 10

1. The Low Rise Multi-Residential & Commercial 75mm STAAC FLOOR® System is limited to the loads and joist spans outlined in Section A3 of this Certificate of Conformity and is only to be installed in accordance with the STAACFloor Houses and Low Rise Multi Residential 75mm STAAC FLOOR® Design and Installation guide July2023. Loads outside the range specified in Section A3 of this Certificate of Conformity requires a site specific assessment of determination of KPa rating of floor panels and supporting frame as they are outside the scope of this Certificate of Conformity.
2. R values, FRLs and Acoustic values vary with installation configurations - Refer A3.
3. F7P1 – Sounds Transmission, only applies to Class 2 or 3 buildings.
4. It is the responsibility of the architectural designer and engineering parties to ensure that the details in this Design and Installation Guide are appropriate for the intended application.
5. Compliance with FRL is dependent on the system configurations as specified in A3. Any deviation from the tested specimen does not form part of this certificate of conformity and requires a site specific performance solution.
6. The KPa rating of floor panels are outlined in A3 of this Certificate of Conformity. The design and engineering of the supporting structural members are outside the scope of the Certificate of Conformity.
7. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the Certificate Holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CMI Certification Pty Ltd (CMI) has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page 1.

A2 Description of product

75mm STAACFloor® Houses and Low Rise Multi Residential & Commercial Floor System comprises of the following components:

Product	Description
STAAC FLOOR 75 panel	The core component of STAAC FLOOR® House, Low Rise Multi-Residential & Commercial Floor is the 75mm thick, steel mesh reinforced STAAC FLOOR® 75mm panel. The panel is manufactured in the following sizes with a mass of up to 56kg/panel. **Length (mm)** 1200, 1800 & 2400 **Width (mm)** 300 & 600
Timber & Steel Support Systems	Timber or steel floor framing can be used to support the 75mm STAAC FLOOR® panel. The allowable spacing of the joists is 450mm or 600mm only. The joists, bearers and other supports shall be sized in accordance with the framing manufacturer's recommendations. Where steel joist framing is used it must be ensured that the 75mm STAAC FLOOR® panels are provided with uniform and complete bearing onto each steel joist. **NOTE:** The designer should allow at least 51kg/m^2 for the self-weight of the75mm STAAC FLOOR® panel. A minimum joist flange width of 45mm is required.
Hebel Adhesive	Hebel Adhesive (supplied in 20kg bags) is used for gluing the panels together at all joints. Typically, panel joints are 2-3mm thick. Sufficient pressure is to be applied to the joint to ensure full coverage of adhesive in the joint. Adhesive is to be mixed to the proportions as stated on the bag.
Construction Adhesive	A 5mm (minimum) bead of Fuller Max Bond construction adhesive is applied to the top of the joists. Where panel ends butt together over a common joist, two beads of adhesive shall be applied. Ensure the surface is free of coatings and loose material that may inhibit bond.
Fasteners & Fixings	**Screws for fixing 75mm STAAC FLOOR® panel to Timber Joists:** 14-10 x 100mm MP Bugle Head type 17 Screws or equivalent. **Screws for fixing 75mm STAAC FLOOR® panel to Steel Joists:** 14-10 x 95mm Hex Head Self-tapping Screws or equivalent (no seal required). This fastener is suitable for metal thickness <1.2mm. Refer to screw manufacturer's guidelines.
Caulking	75mm STAAC FLOOR® requires that all gaps at openings, penetrations and control joints be caulked to provide an airtight floor system that maintains acoustic, thermal, vermin and fire resistance performance. All gaps must be carefully and completely filled with an appropriate flexible polyurethane sealant, installed in accordance with the sealant manufacturer's specifications. **NOTE:** The designer should specify the magnitude of the gaps between the 75mm STAAC FLOOR® panel and structure. This gap will allow movement to release any confining stresses due to movement of the supporting structure.
Hebel Patch	Minor Chips or damage to 75mm STAAC FLOOR® panels are to be repaired using Hebel Patch (supplied in 10kg bags).
Hebel anti-corrosion protection paint	To coat exposed reinforcement during cutting.

A3 Product specification

Structural Performance

75mm STAAC FLOOR® systems can support a maximum uniformly distributed load of 5kPa, or concentrated (point) load of 1.8kN over a load area of 350mm^2 (with joists at 450mm or 600mm centres only) or 3.9kN over a load area of 10,000mm^2 when installed in accordance with the STAACFloor Houses and Low Rise Multi Residential 75mm STAAC FLOOR® Design and Installation guide July2023. The design and engineering of the supporting structural members are outside the scope of the Certificate of Conformity.

You must contact the Certificate Holder for loads not nominated in this Certificate of Conformity as they are outside the Scope of Certification of this Certificate of Conformity.

Non-combustibility

The certificate holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for 75mm STAAC FLOOR® panel – Autoclaved Aerated Concrete (AAC) Dry Density 510kgm3.

The material is NOT deemed combustible - Limited to the panel only.

Source: *CSIRO; NATA Accreditation No. 165; Report No. FNC12427A dated 02/09/2019.*

Fire-Resistance Levels

The FRL rating of the systems detailed in this guide are opinions issued by the CSIRO based on test results.

Testing has been conducted in accordance with the Australian Standard AS 1530: Part 4 'Fire Resistance Tests of Elements of Building Construction'.

The FRL rating consists of three performance criteria, structural adequacy / integrity / insulation. The 75mm STAAC FLOOR® system achieves fire resistance of **90/90/90** minutes from a fire source above the floor. For fire resistance to a fire source below the floor a fire rated ceiling system must be installed.

Acoustic and Thermal Performance

To achieve the Acoustic and Thermal Performances tabled below, 75mm STAAC FLOOR® System Configurations must be constructed in accordance with the Fixing Details of the STAACFloor Houses and Low Rise Multi Residential 75mm STAAC FLOOR® Design and Installation guide July2023.

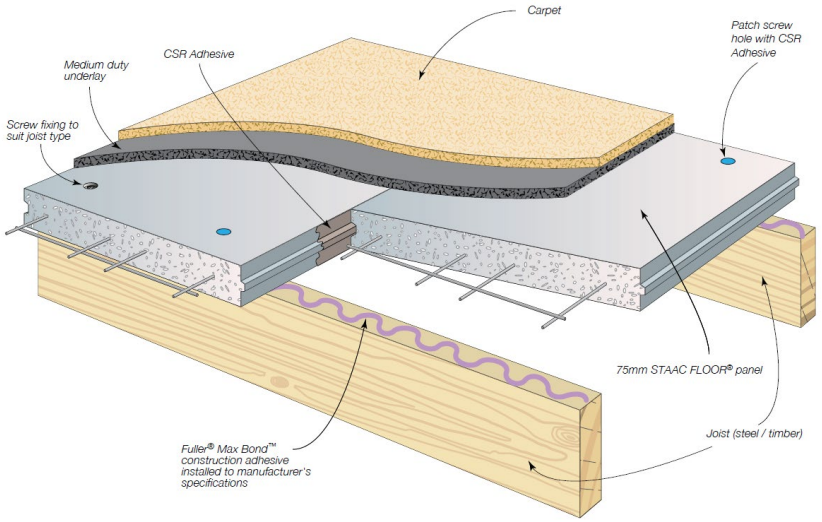
Notes:

- Ceiling insulation: 90mm R2.0 glasswool batt.
- R-Value in ( ) is for unenclosed ground floor.
- Combined floor and ceiling system thermal values are opinions determined for internal conditions above and internal conditions below.
- Airflow direction - Up = Summer, Down = Winter.
- Where steel framed joists are used, values for 'R-value up' and 'R-value down' should be reduced by 10% e.g. R-value of 3.00 results in R-value of 2.70 after the 10% reduction.

75mm STAAC FLOOR® System – Carpet

Application	Acoustic			Thermal	
	R_W	$R_W + C_{tr}$	Lnw	R-value up	R-value down
Ground Floor	37	33	45	1.44 (0.87)	1.85 (0.92)
2nd Storey	59	53	30	3.18	3.47

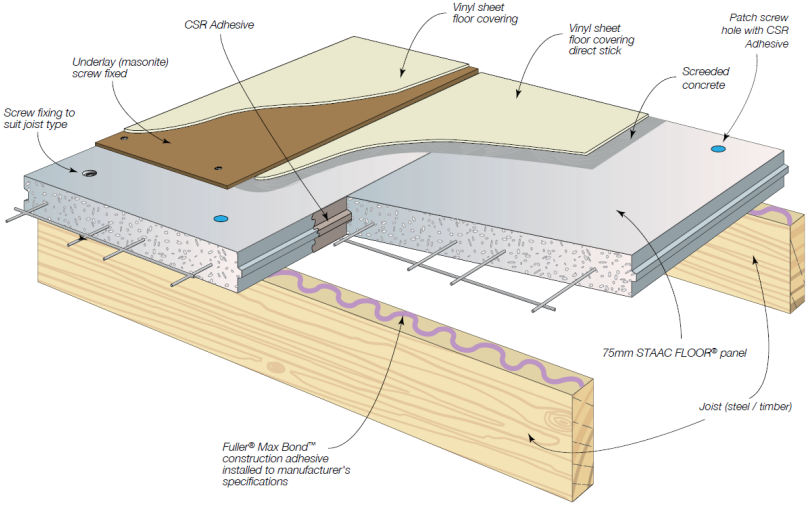
Figure 7.1 STAAC FLOOR® System with Carpet



75mm STAAC FLOOR® System – Vinyl sheet floor covering

Application	Acoustic			Thermal	
	R_W	$R_W + C_{tr}$	Lnw	R-value up	R-value down
Ground Floor	38	34	76	1.18 (0.59)	1.30 (0.64)
2nd Storey	60	53	59	2.90	3.19

Figure 7.2 STAAC FLOOR® system with vinyl sheet floor covering



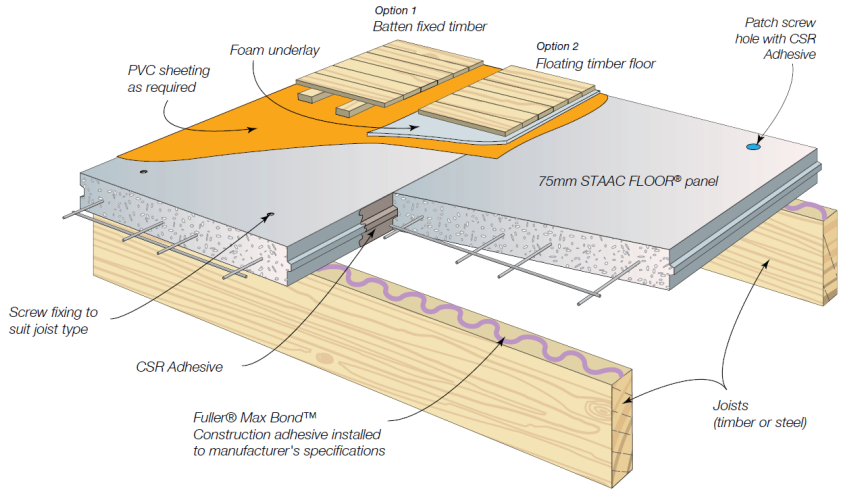
75mm STAAC FLOOR® System – Timber on Battens floor covering

Application	Acoustic			Thermal	
	R_W	$R_W + C_{tr}$	Lnw	R-value up	R-value down
Ground Floor	37	33	80	1.43 (0.84)	1.59 (0.93)
2nd Storey	59	53	59	3.16	3.49

75mm STAAC FLOOR® System – Timber Floating floor covering

Application	Acoustic			Thermal	
	R_W	$R_W + C_{tr}$	Lnw	R-value up	R-value down
Ground Floor	37	33	77	1.33 (0.74)	1.45 (0.79)
2nd Storey	60	53	58	3.05	3.34

Figure 7.3 STAAC FLOOR® system with timber flooring

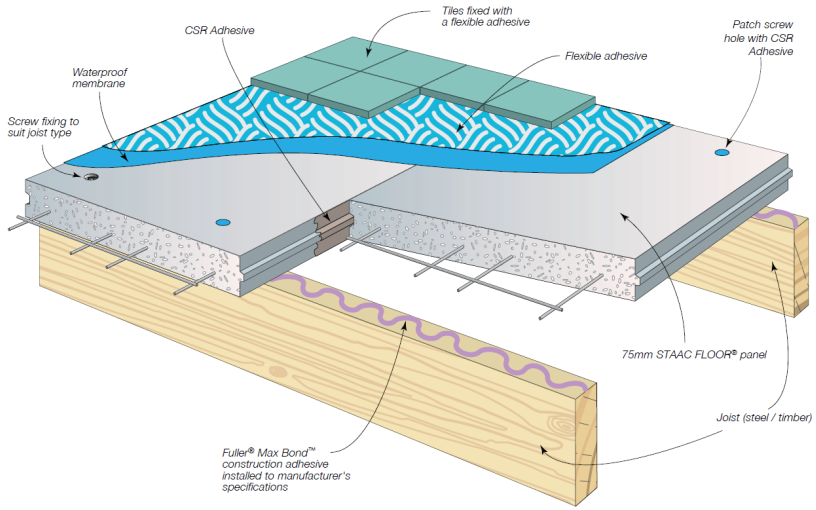


75mm STAAC FLOOR® System – 8mm Ceramic tiles floor covering

Application	Acoustic			Thermal	
	R_W	$R_W + C_{tr}$	Lnw	R-value up	R-value down
Ground Floor	38	34	82	1.19 (0.60)	1.31 (0.65)
2nd Storey	58	52	69 / 59**	2.91	3.20

****with min. 4.5mm rubber underlay.**

Figure 7.4 STAAC FLOOR® system with 8mm ceramic tiles



A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

A5 Installation requirements

Only to be installed in accordance with the STAACFloor Houses and Low Rise Multi Residential 75mm STAAC FLOOR® Design and Installation guide July2023.

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Acoustic and Sound Provisions A5G3(1)(e). A report issued by a professional engineer.
2. Energy Efficiency Provisions A5G3(1)(e). A report issued by a professional engineer.
3. Fire Safety Provisions A5G3(1)(d)&(e). A report issued by an Accredited Testing Laboratory & a report from a professional engineer.
4. Structural Resistance Provisions A5G3(1)(e). A report issued by a professional engineer.

B2 Reports

1. CSIRO; NATA Accreditation No. 165; Report No. FNC12427A; Certificate of Test for Combustibility Test for Materials in accordance with AS 1530.1:1994; Dated 02/09/2019. Report confirms compliance with C2D10 & H3D2.
2. Exova Warringtonfire; Nata Accreditation No. 3277; EWFA Report No. 26162-02; Assessment of the fire resistance performance in accordance with AS 1530.4-2014; Dated 06/12/2016. FRLs achieved by STAACFloor system for compliance with C2D2(2) and H3D5.
3. James M Fricker Pty Ltd; Report No. 107_E43pine; Thermal Performance Calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 01/09/2020. Report outlines thermal performance to contribute to compliance with J4D7 & H6D2(1)(b)(i).
4. James M Fricker Pty Ltd; Report No. 107_E43steel; Thermal Performance Calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 01/09/2020. Report outlines thermal performance to contribute to compliance with J4D7 & H6D2(1)(b)(i).
5. PACE Structural Pty Ltd; File No. PS23051; Structural Design Certificate for STAACFloor Houses and Low Rise Multi Residential 75mm Floor System; Dated 01/08/2023. Report confirms the structural design capacity calculations on the Stoddart STAACFloor Houses and Low Rise Multi Residential 75mm Floor System comply with B1P1(1), (2)(a), (b), (c) & (d) and H1P1(1), (2)(a), (b), (c) & (d)
6. PKA Acoustic Consulting Pty Ltd; Report No. PKA-A071; Acoustic Performance Assessment of AAC Floor; Dated 07/06/2018. Report provides opinion of Acoustic Performance for compliance with F7P1.
7. Stephen Grubits & Associates Pty Ltd; Report No. 2013/277.64 R1.1; Fire Resistance of 75mm AAC Floor System; Dated 14/04/2018. Report provides compliance with Fire Safety Provisions C2D2(2) and H3D5.

The Certificate Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial in confidence.