Certificate of Conformity

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Certificate number: CM30057 Rev4

THIS TO CERTIFY THAT

Knauf Insulation Supafil CarbonPlus

Type and/or use of product:	**Description of product:**
Loose fill bulk thermal insulation material for cavity masonry walls in residential and commercial construction.	Supafil CarbonPlus is a loose fill silicone coated non-combustible glass mineral wool insulation. It is blown into the cavity of masonry walls to a nominal density of 25 kg/m^3.

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

	Volume One		**Volume Two – including Housing Provisions**	
Performance Requirement(s)	**F3P1**	Weatherproofing	**H2P2**	Weatherproofing
	F1P4	Rising damp	**H2P3**	Rising damp
	G2P1	Combustion heating appliances	**H7P3**	Heating appliances
	J1P1	Energy use	**H6P1**	Energy efficiency – building
Deemed-to-Satisfy Provision(s):	**Schedule 1**	Non-combustible	**Schedule 1**	Non-combustible
	C2D10	Non-combustible building elements	**9.2.1**	Fire separation - External walls of Class 1 buildings
	C2D11	Fire hazard properties	**9.3.1**	Fire protection - Separating walls
	Specification 28 S28C4(2)(b)	Sound insulation for building elements	**10.7.5(2)(b)**	Construction of sound insulated walls

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.
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.
The purpose of Global-Mark **construction site audits** is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions
In placing **the CodeMark mark** on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the **expertise of external bodies** (laboratories, and technical experts).

Herve Michoux
Global-Mark Managing Director

Peter Gardner
Unrestricted Building Certifier

Date of issue: 21/10/2024

Date of expiry: 21/10/2027

	G5D3	Construction in bushfire prone areas – protection	**H7D4**	Construction in bushfire prone areas
	G5D4	Construction in bushfire prone areas – Protection – Certain Class 9 buildings		
State or territory variation(s):	**SA F1P4**	Rising damp	**NSW H2P3**	Rising damp
			SA H2P3	Rising damp
	NT Specification 28	Sound insulation	**NT 10.7**	Sound insulation
			Tas H7P3	Heating appliances
	NSW C2D11	Fire hazard properties	**SA 9.2.1**	Fire separation - External walls of Class 1 buildings
	NSW G5D3	Construction in bushfire prone areas – protection	**NSW H7D4**	Construction in bushfire prone areas
	NSW G5D4	Construction in Bushfire Prone Areas – Protection – Class 9 buildings used as a special purpose		
	VIC G5D4	Construction in bushfire prone areas – Protection – Certain Class 9 buildings		
	NSW Section J (NCC 2019 A1 NSW Section J)	Energy Efficiency – Class 2 or Class 4 part of a building (up to V3 BASIX dwellings)	**NSW H6 (NCC 2019 A1 NSW 2 Energy Efficiency)**	Energy Efficiency (up to V3 BASIX dwellings)
	NSW Section J (NCC 2022 Section J)	Energy Efficiency – Class 2 or Class 4 part of a building (V4 or later BASIX dwellings)	**NSW H6 (NCC 2022 NSW Part H6)**	Energy Efficiency (V4 or later BASIX dwellings)
	NSW Section J (NCC 2019 A1 NSW Section J)	Energy Efficiency – Class 2 or Class 4 part of a building (BASIX Alterations and Additions)	**NSW H6 (NCC 2019 A1 NSW 2 Energy Efficiency)**	Energy Efficiency (BASIX Alterations and Additions)
	NSW Section J (NCC 2022 Section J)	Energy Efficiency – Class 3 or 5-9 buildings		
	Tas Section J (NCC 2019 A1 Section J)	Energy Efficiency – Class 2 and Class 4 part of a building	**Tas Part H6 (NCC 2019 A1 Part 2.6)**	Energy Efficiency

			NT H6P1	Energy efficiency - Building

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:**
Volume 1 – G5D3 and Volume 2 – H7D4 In designated bushfire prone areas subject to Bushfire Attack up to and including BAL-FZ, when the building is constructed in accordance with AS3959:2018 including Amendment 1 & 2 for the bushfire attack level considered, Supafil CarbonPlus is permitted for use in wall systems in buildings.	Class 1, 2, 3 and 10a or deck immediately adjacent or connected to building class 1, 2 or 3
Volume 1 – G5D4 In Bushfire prone areas, when the building is constructed in accordance with Specification 43, Supafil Carbon Plus is permitted for use only in buildings subject to Bushfire Attack Level BAL-Low and BAL-12.5. Construction in BAL-19, BAL-29, BAL-40 and BAL-FZ, are outside the scope of application of the clause.	Class 9a, 9b, 9c and 10a or deck immediately connected or adjacent to a Class 9a, 9b or 9c building
Volume 1 – NSW G5D3 In designated bushfire prone areas subject to all Bushfire Attack Level up to and including Bal-40, determined in accordance with the Planning for Bush Fire Protection 2019 including addendum November 2022, when the building is constructed in accordance with AS3959: 2018 including Amendments 1 & 2 except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, Supafil CarbonPlus is permitted for use. The compliance assessment of the certified system is limited to sections 7.5 and 8.3.2 of the Planning for Bush Fire Protection 2019 including addendum November 2022. Site specific conditions arising from: - the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required, or - the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development have not been considered for the compliance assessment.	Class 2, Class 3, Class 4 part of a building & Class 10a building or deck immediately adjacent or connected to building Class 2, Class 3 or Class 4 part of a building
Volume 1 – NSW G5D4 In designated bushfire prone areas subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection 2019 including addendum November 2022, when the building is constructed in accordance with 1) For class 9 building, Specification 43, except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, or 2) For class 10a building or deck AS3959: 2018 including Amendment 1 & 2 except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, and S43C13	Class 9 building that is a special fire protection purpose; and a Class 10a building or deck immediately adjacent or connected to such building

Supafil CarbonPlus is permitted for use. The compliance assessment of the certified system is limited to sections 7.5 and 8.3.2 of the Planning for Bush Fire Protection 2019 including addendum November 2022. Site specific conditions arising from the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development have not been considered for the compliance assessment. Construction in BAL-19, BAL-29, BAL-40 and BAL-FZ, are outside the scope of application of the clause.	
Volume One – VIC G5D4 In designated bushfire prone areas, when the building is constructed in accordance with Specification 43, Supafil Carbon Plus is permitted for use as external wall cladding only in buildings subject to Bushfire Attack Level BAL-Low, BAL-12.5 Construction in BAL-19, BAL-29, BAL-40 and BAL-FZ, fall outside the scope of this certification	Class 9a, 9b, 9c and 10a or deck immediately connected or adjacent to a Class 9a, 9b or 9c building and Class 4 associated with Class 9a, 9b or 9c
Volume 2 – NSW H7D4(2)(a) In designated bushfire prone areas subject to all Bushfire Attack Level up to and including BAL-40, determined in accordance with the Planning for Bush Fire Protection 2019 including addendum November 2022, when the building is constructed in accordance with AS3959: 2018 including Amendment 1 & 2 except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, Supafil Carbon Plus is permitted for use. The compliance assessment of the certified system is limited to sections 7.5 and 8.3.2 of the Planning for Bush Fire Protection including addendum November 2022. Site specific conditions arising from: - the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required, or - the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development have not been considered for the compliance assessment.	1 & 10a building or deck associated with a building Class 1
General The addition of the product to the cavity of a masonry wall will not diminish the performance of the wall under fire.	Unlimited
General Installation shall be carried out by a Knauf Insulation accredited installed in accordance with AS 3999:2015 (incorporating Amendment No.1) and the relevant installation guide as specified in section A5.	Unlimited
General Installation shall be carried out on masonry walls complying with the following requirements: a. Masonry units shall be minimum 90mm width.	Unlimited

b. The cavity shall be nominal 50mm width. The minimum width shall be 40mm, with local reduction to 35mm around services or other cavity protrusions as permitted in AS 3700:2018 and AS 4773.2:2015 (incorporating Amendment No.1). The maximum cavity width shall be 100mm. c. The requirements of either AS 3700:2018 or AS 4773.1:2015 (Incorporating Amendment No.1) and AS 4773.2:2015 (incorporating Amendment No.1) must be maintained.	
General Use is restricted to buildings no greater than 12 m in height.	Unlimited
General Excludes masonry veneer construction.	Unlimited

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Supafil CarbonPlus is a loose fill thermal insulation that is blown-in to the cavity between masonry wall leaves after they are constructed.

The product can also be used for acoustic insulation in cavity masonry separating walls.

A2 Description of product

Supafil CarbonPlus has 58.5% post-consumer recycled glass content. The fibres are unbonded and have a silicone treatment to be water repellent. The product is a non-combustible bulk insulation and complies with AS/NZS 4859.1:2018.

A3 Product specification

Specification of Supafil CarbonPlus insulation shall be in accordance with the following documents:

- Knauf Insulation Supafil CarbonPlus Retro-fit Installation System Installation Manual, Ref.: KIAU1214145BR, August 2017
- Knauf Insulation Supafil CarbonPlus Product Datasheet, Ref.: KIAU0314060DS, August 2015

Also refer to Knauf Insulation Material Safety Datasheet – Glass Mineral Wool with ECOSE® Technology [October 2014].

A4 Manufacturer and manufacturing plant(s)

St Helens, PO Box 10, Stafford Road, Merseyside WA 10 3NS, UK

A5 Installation requirements

Installation shall be carried out in accordance with AS3999:2015 (incorporating Amendment No.1) and the Knauf Insulation Supafil CarbonPlus Retro-fit Installation System Installation Manual, Ref.: KIAU1214145BR, August 2017. Installed insulation material shall have a nominal density of 25 kg/m^3.

A6 Other relevant technical data

Supafil CarbonPlus has a thermal conductivity of 0.0389 W/mK and resistance (R-value) of 1.285 m^{2}K/W for a 50 mm cavity, tested in accordance with AS/NZS 4859.1:2018.

Any referenced documents within the technical literature identified in Appendix A, A3 and Appendix A, A5.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The following assessment methods have been used to determine compliance with NCC 2022:

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
Volume One Schedule 1	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One C2D10	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One C2D11	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 4
Volume One F3P1	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 10
	Volume One A2G2(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Items 7 and 11
Volume One F1P4	Volume One A2G2(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 11
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions – installation is above a DPC.	
Volume One Specification 28 – S28C4(2)(b)	Volume One A2G3(1)	Satisfies the Deemed-to-Satisfy Provisions – 50mm thick glass wool insulation that is installed to a density greater than the minimum specified in Table 2 for two leaves of 110mm clay brick masonry.	
Volume One G2P1	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One G5D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One J1P1	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two Schedule 1	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two H2P2	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 10
	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Items 7 and 11
Volume Two H2P3	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 11
	Volume Two A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions – installation is above a DPC.	
Volume Two H6P1	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two H7P3	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two 9.2.1	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two 9.3.1	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two H7D4	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two 10.7.5(2)(b)	Volume Two A2G3(3)(a)	Satisfies the Deemed-to-Satisfy Provisions – 50mm thick glass wool insulation that is installed to a density greater than the minimum specified in this clause for two leaves of 110mm clay brick masonry.	
Volume One SA F1P4	Volume One A2G2(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 11
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions – installation is above a DPC.	
Volume One NSW C2D11	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 4
Volume One NSW G5D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10

Volume One NSW G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One VIC G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume One NSW Section J (NCC 2019 A1 NSW Section J) Class 2 and Class 4 parts up to BASIX V3	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume One NSW Section J (NCC 2022 Section J) Class 2 and Class 4 parts V4 BASIX and greater	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume One NSW Section J (NCC 2019 A1 NSW Section J) Class 2 or Class 4 Alterations	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume One NSW Section J (NCC 2022 Section J) Class 3 or 5-9 bldgs	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume One Tas Section J (NCC 2019 A1 Section J)	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two NSW H2P3	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 11
	Volume Two A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions – installation is above a DPC.	
Volume Two SA H2P3	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 11
	Volume Two A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions – installation is above a DPC.	
Volume Two NT 10.7	Volume Two A2G3(3)(a)	Satisfies the Deemed-to-Satisfy Provisions – 50mm thick glass wool insulation that is installed to a density greater than the minimum specified in 10.7.1 for two leaves of 110mm clay brick masonry.	
Volume Two Tas H7P3	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two SA 9.2.1	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two NSW H7D4	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Items 1, 2, 3, 4, 5, 6, 8 and 10
Volume Two NSW H6 (NCC 2019 A1 NSW 2 Energy Efficiency) Up to V3 BASIX	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two NSW H6 (NCC 2022 NSW Part H6) V4 BASIX and later	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two NSW H6 (NCC 2019 A1 NSW 2 Energy Efficiency) BASIX Alterations	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two Tas Part H6 (NCC 2019 A1 Part 2.6)	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9
Volume Two NT H6P1	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by a registered testing authority	Item 9

B2 Reports

The following reports have been used as evidence to determine compliance with NCC 2022:

Ref	Author	Reference	Date	Description	NATA Registration
1	Bodycote Warringtonfire, UK	Report No. 173781	12/08/2008	BS EN ISO 1182:2002 Fire Test for Non-Combustibility of Building Products Product tested – Perimeter Plus	ilac-MRA via. UKAS – Accreditation Number 0249
2	Warrington Certifire	Certificate Number AC100.2	21/12/2022	Product assessed against ATS00 / ATS11 to AS 1530.1 and approved for use as a non-combustible product	Accreditation Number 3277
3	Bodycote Warringtonfire, UK	Report No. 173833	15/08/2008	Classification of Reaction to Fire Performance in Accordance with EN 13501-1:2007 Product name – Perimeter Plus	ilac-MRA via. UKAS – Accreditation Number 0249 [European Commission Notified Body Number 0833]
4	AWTA Product Testing	Test Number: 7-565160-CO	12/03/2009	AS/NZS 1530.3-1999 Simultaneous determination of Ignitability, Flame Propagation, Heat Release and Smoke Release Product tested – 50mm Earthwool insulation, 1670 g/m^2	Accreditation Number 1356
5	Exova Warringtonfire, UK	Document Reference: 311313	27/09/2011	Fire Test For Non-Combustibility Of Building Products – product reference “HD-32-8-ET”, 80mm thickness, 32 kg/m^3 density	ilac-MRA via. UKAS – Accreditation Number 0249
6	Exova Warringtonfire, UK	Document Reference: 311316	27/09/2011	Determination Of The Heat Of Combustion For Building Products – product reference “HD-32-8-ET”, 80mm thickness, 32 kg/m^3 density	ilac-MRA via. UKAS – Accreditation Number 0249
7	Knauf Insulation Process and Product Development Department	Test Number: RPT168B	6/11/2012	BBA Rain Penetration Test Report for KI SF34/Carbon+ Glass Mineral Insulation Blown into a 40mm Narrow Cavity	Not applicable
8	Exova Warringtonfire, UK	Document Reference: N964364C	1/11/2013	Determination of Organic Matter in Thermal Insulation Material in Accordance with BS EN 13820-2003 – Supafil Carbon+	ilac-MRA via. UKAS – Accreditation Number 0249
9	BRANZ	Project Number: DI0457 Test Reference: DU01	17/04/2014	Thermal Resistance of Supafil CarbonPlus, 50 mm thickness, nominal 25 kg/m^3 density	ilac-MRA via. IANZ – Accreditation Number 37
10	British Board of Agrément	Agrément Certificate 13/4969	13/03/2019	Supafil – Knauf Insulation Supafil CarbonPlus Cavity Wall Insulation Key factors assessed: thermal properties, water penetration, condensation, behaviour in relation to fire, and durability.	ilac-MRA via. UKAS – Accreditation Number 113
11	Standards Australia	AS 3999:2015 (incorporating Amendment No.1)	2015 (Amdt 1 2020)	Bulk thermal insulation - Installation	Not applicable

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

End of Certificate.