



PRODUCT CERTIFICATE

Knauf Insulation

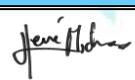


KEY INFORMATION

CERTIFICATE: **GM-CM30095 RevB**

1	SUMMARY OF DESCRIPTION OF BUILDING METHOD OR PRODUCT
	Knauf Insulation and Earthwool® glasswool is a mineral fibre type bulk insulation with DriTherm® technology that complies with AS/NZS 4859.1:2018 and is supplied as batts or rolls with thickness between 50 mm and 275 mm, and nominal density between 8 kg/m ³ and 32 kg/m ³ with binder content no greater than 8%.
2	SUMMARY OF INTENDED USE OF BUILDING METHOD OR PRODUCT
	Non-combustible bulk thermal and acoustic insulation for residential and commercial construction within the following scope: <ul style="list-style-type: none"> • Walls when installed in the cavities between framing members. • Floors when installed in the cavities between flooring members. • Roofs when installed over and between roof framing. • Ceilings when installed in the cavities between the ceiling members.
3	BUILDING CODE PROVISIONS
	The System if installed and maintained in accordance with this Certificate, the system will meet the following provisions of the NZBC: <p>Clause B2 DURABILITY: Performance B2.3.1(a) not less than 50 years, and B2.3.2. Earthwool® glasswool insulation products will meet these requirements.</p> <p>Clause C3 PROTECTION FROM FIRE: Performance C3.7(a). Earthwool® glasswool insulation products are not combustible building materials and will contribute to meeting this requirement.</p> <p>Clause E3 INTERNAL MOISTURE: Performance E3.3.1. Earthwool® glasswool insulation products will contribute to meeting this requirement.</p> <p>Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Earthwool® glasswool insulation products do not present a health hazard to people.</p> <p>Clause G6 AIRBORNE AND IMPACT SOUND: Performance G6.3.1. Earthwool® glasswool insulation products will contribute to meeting the requirement of STC not less than 55.</p> <p>Clause H1 ENERGY EFFICIENCY: Performance H1.3.1(a) and H1.3.2E. Earthwool® glasswool insulation products will contribute to meeting these requirements.</p>

4	CERTIFICATE HOLDER DETAILS
	<p>Knauf Insulation Pty Ltd 23 Corporate Drive Cannon Hill, QLD, 4170 Tel: +61 7 3393 7300 Email: tech.nz@knaufinsulation.com Web: www.knaufinsulation.co.nz</p>

ISSUED	LAST UPDATE	RECERTIFICATION
06/09/2018	03/05/2021	03/05/2024
5 SIGNATURE		
 Herve Michoux, Global Mark Managing Director		

6	PRODUCT CERTIFICATION BODY
	<p>Global-Mark Pty Ltd 57 Willis Street, Wellington, 6011 customer.service@global-mark.co.nz +64 9 889 0622 www.global-mark.co.nz</p> <p style="text-align: center;">The complaints process for this certificate can be found here: https://www.global-mark.com.au/?s=complaint</p>



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7 CONDITIONS AND LIMITATIONS OF USE

1. Specification and incorporation of Earthwool® glasswool insulation products into the building design shall be carried out by a designer, architect, engineer, or building professional in accordance with NZS 4214:2006 Methods of Determining the Total Thermal Resistance of Parts of Buildings and NZS 4218:2009 Thermal Insulation – Housing and Small Buildings when incorporating Knauf Insulation products to achieve the required building performance.
2. Specification of Earthwool® glasswool insulation products shall be in accordance with the following documents, available at – www.knaufinsulation.co.nz/products:
 - Knauf Insulation Earthwool® glasswool Product Datasheets as follows:
 - Earthwool® glasswool insulation: Acoustic, Ref.: KINZ0914116DS, January 2021
 - Earthwool® glasswool insulation: Ceiling, Ref.: KINZ1213029DS, January 2021
 - Earthwool® glasswool insulation: Commercial roll, Ref.: KINZ0914115DS, January 2021
 - Earthwool® glasswool insulation: Wall, Ref.: KINZ0914114DS, January 2021
 - Earthwool® glasswool: Multi-Use roll, Ref.: KINZ0616396DS, January 2021
 - Earthwool® glasswool insulation: Underfloor Roll, Ref.: KINZ0616380DS, June 2016
 - Earthwool® glasswool: Quilted underfloor segments, Ref.: KINZ0317511DS, August 2017
3. Installation shall be carried out by a Knauf Insulation accredited installer and installed in accordance with NZS 4218:2009 Thermal insulation - Housing and small buildings or NZS 4246:2016 Energy efficiency – Installing bulk thermal insulation in residential buildings, and the relevant Earthwool® glasswool installation instructions as specified below and which are available at – www.knaufinsulation.co.nz/products – to meet the stated thermal performance rating of the insulation:
 - Installation Instructions – Earthwool® glasswool Insulation Ceiling Segments, Ref : KINZ1017631MIS
 - Installation Instructions – Earthwool® glasswool Insulation Ceiling Rolls, Ref : KINZ1017632MIS
 - Installation Instructions – Earthwool® glasswool Quilted Underfloor Segments, Ref : KINZ0817602MIS
 - Installation Instructions – Earthwool® glasswool Insulation Underfloor Roll, Ref : KINZ1017636MIS
 - Installation Instructions – Earthwool® glasswool Insulation Wall Segments, Ref : KINZ1017633MIS
4. Installation shall be carried out only after the building is waterproof, and after the materials within the building have dried to a sufficient degree that moisture is not transported into the insulation material.
5. In residential construction, installation shall also be carried out in accordance with NZS 4246:2016 Energy efficiency – Installing bulk thermal insulation in residential buildings
6. Refer to Table 1 for a schedule of Earthwool® glasswool Insulation products covered by this certificate.

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Table 1: Knauf Earthwool® Glasswool Product Schedule

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Climacoustic Ductwrap

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	Width (mm)	Length (mm)
2400374	636677	25	28.0	1200	18000
2400373	683676	40	28.0	1200	12000
2400372	690950	50	28.0	1200	9000

Acoustic Batt

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	Width (mm)	Length (mm)
529446	683669	50	11.0	600	2700
529447	683670	75	11.0	600	2700
471045	683649	50	14.0	580	1160
471049	683650	75	14.0	580	1160
471070	683655	90	20.1	430	1160
471071	683656	90	20.1	580	1160
471040	683646	90	30.7	430	1160
471041	683647	90	30.7	580	1160

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Roof Blanket

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
511826	683665	75	11.6	1.9	1200	23000
511830	683666	100	10.2	2.4	1200	17500
511837	683667	120	12.8	3.1	1200	14500
511842	683668	130	12.0	3.3	1200	13500

Earthwool® glasswool

Wall Batt

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
471038	683644	90	10.8	2.2	580	1160
471039	683645	90	14.6	2.4	580	1160
471070	683655	90	20.1	2.6	430	1160
471071	683656	90	20.1	2.6	580	1160
471040	683646	90	30.7	2.8	430	1160
471041	683647	90	30.7	2.8	580	1160
471042	683648	140	9.3	3.2	580	1160
470319	683641	140	13.4	3.6	580	1160
505604	691267	140	22.6	4.1	580	1160

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Ceiling Batt

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
583500	683674	155	7.7	3.3	430	1160
471072	683657	175	7.4	3.6	430	1160
471053	731850	175	7.4	3.6	600	1200
471073	683658	195	7.8	4.1	430	1160
471054	683653	210	11.4	5.2	430	1160
471055	683654	275	9.0	6.3	430	1160

Skillion Batt

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
470320	683642	105	26.5	3.2	430	1160

Ceiling Roll

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
470311	690852	70	12.6	1.8	1200	13500
470313	690928	115	13.8	2.9	1200	8500
470315	690934	135	11.0	3.2	1200	8000
470317	690936	150	11.0	3.6	1200	7000

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Handy Roll

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
681570	707760	90	10.8	2.2	430	18000
681564	707746	90	10.8	2.2	580	18000

FloorShield: Ultimate

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
651677	691130	90	21.0	2.5	420	1160

Faced Underfloor: Basic

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
546235	683671	75	10.9	1.8	500	10000
654389	723803	75	11.0	1.8	600	10000

Quilted

Current Material Codes	Future Material Codes	Thickness (mm)	Density (kg/m ³)	R-value (m ² K/W)	Width (mm)	Length (mm)
596252	596252	70	9.2	1.5	470	2700

8 HEALTH AND SAFETY INFORMATION

Standard industry safety practices and manufacturer safety requirement as detailed in the technical literature including the applicable SDS must be observed at all times.

Refer to Knauf Insulation Material Safety Data Sheet, Issue Date: October 2014 and NZS 4246:2016 Energy efficiency – Installing bulk thermal insulation in residential buildings.

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9 SUPPORTING INFORMATION ABOUT DESCRIPTION			
<p>Earthwool® glasswool is manufactured with recycled glass and ECOSE® Technology binder which is created from renewable materials. The product types and special characteristics are listed below:</p> <ul style="list-style-type: none"> • Knauf Insulation Acoustic Batts – Basic at 11 kg/m³; Ultra at 14 kg/m³; and High-Density at 17 kg/m³, 20 kg/m³ and 27 kg/m³ • Knauf Insulation Roof Blanket – has optional foil backing • Earthwool® glasswool Ceiling Rolls • Earthwool® glasswool Ceiling Batts • Earthwool® glasswool Multi-Use Rolls • Earthwool® glasswool Underfloor Roll – faced with a black glass wind wash barrier • Earthwool® glasswool Wall Batts <p>Knauf Insulation is a mineral fibre type bulk insulation complying with AS/NZS 4859.1:2018. It is manufactured with recycled glass and ECOSE® Technology binder which is created from renewable materials.</p> <p>Catalogue or model identification numbers: Refer to Table 1</p>			
10 SUPPORTING INFORMATION ABOUT INTENDED USE			
Nil.			
11 SUPPORTING INFORMATION ABOUT CONDITIONS AND LIMITATIONS OF USE			
Nil.			
12 BASIS FOR CERTIFICATION			
The certification decision is based on independent technical review(s) of test report(s), engineering opinion(s) and other documented evidence(s), factory audit(s) and site review(s)			
Code Clause	Compliance pathway	Evidence	
Performance B2.3.1(a) and B2.3.2	Testing in accordance with AS/NZS 4859.1:2018 and assessment by registered testing laboratory.	Doc. Ref.: 8	
Performance C3.7(a)	Testing in accordance with AS/NZS 1530.1 and assessments by registered testing laboratories and professional engineers.	Doc. Ref.: 1 to 7	
Performance E3.3.1	Compliance with NZS 4214:2006, NZS 4218:2009 and NZS 4246:2016 and assessment by registered testing laboratory	Doc. Ref.: 8 and 20	
Performance F2.3.1	Evaluation for Material Safety Data Sheet and assessment by registered testing laboratory	Doc. Ref.: 8 and 22	
Performance G6.3.1	Assessment by professional engineer as to acceptability for use where glasswool specified in an Acceptable Solution.	Doc. Ref.: 16 and 17	
Performance H1.3.1(a) and H1.3.2E	Testing of product thermal conductivity and determination of element R-values in accordance with AS/NZS 4859.1:2018, specification in accordance with NZS 4214:2006 and NZS 4218:2009, installation in accordance with NZS 4246:2016, and assessment by registered testing laboratory.	Doc. Ref.: 9 to 19, and 21	
13 SUPPORTING DOCUMENTATION FOR CERTIFICATION			
Ref	Author	Title	Date and/or revision
1	Exova Warringtonfire, UK	Classification of reaction to fire performance in accordance with EN 13501:2007+A1:2009 – product reference “SK Dritherm Cavity Slab 100mm”	Report No. WF 388511 7/09/2017

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2	Exova Warringtonfire, UK	Fire Test For Non-Combustibility Of Building Products – product reference “HD-32-8-ET”, 80mm thickness, 32 kg/m3 density	Document Reference: 311313 27/09/2011
3	Exova Warringtonfire, UK	Determination Of The Heat Of Combustion For Building Products – product reference “HD-32-8-ET”, 80mm thickness, 32 kg/m3 density	Document Reference: 311316 27/09/2011
4	CSIRO	Likely fire performance of Knauf Earthwool glass mineral wool insulation	Assessment Number: FCO-3073 (Revision A) 28/08/2014
5	Exova Warringtonfire	Test in accordance with AS 1530.1-1994 Methods for fire tests on building materials, components and structures – Part 1: Combustibility test for materials. Test specimen – Knauf Earthwool – R2.7, 90 mm thick, 24 kg/m3 density. Result – NOT DEEMED COMBUSTIBLE.	EWFA Test Report No.: 56297900b.1 11/08/2018
6	Exova Warringtonfire	Test in accordance with AS 1530.1-1994 Methods for fire tests on building materials, components and structures – Part 1: Combustibility test for materials. Test specimen – Knauf Earthwool – R3.5, 175 mm thick, 9.5 kg/m3 density. Result – NOT DEEMED COMBUSTIBLE.	EWFA Test Report No.: 56297900a.1 11/08/2018
7	Ignis Solutions	Engineer’s report – Evaluation of Knauf Insulation against AS 1530.1-1994	Evaluation No. IGNS-7424 Issue 02 Revision 01 [2019] 29/04/2020
8	BRANZ	New Zealand Building Code appraisal	Appraisal No. 648 2016
9	BRANZ	Thermal Insulation Report – Earthwool New Zealand: 90 mm, R2.4	Project Number DI0448 Test No. DU03A – 2/04/2014
10	BRANZ	Thermal Insulation Report – Earthwool New Zealand 70 mm, R1.8 115 mm, R2.9 135 mm, R3.2 150 mm, R3.6	Project Number DI0455 Test No. DU01 – 1/05/2014 Test No. DU02 – 2/05/2014 Test No. DU03 – 8/05/2014 Test No. DU04 – 22/05/2014
11	BRANZ	Thermal Insulation Report – Earthwool New Zealand 140 mm, R3.2 140 mm, R3.6	Project Number DI0463 Test No. DU07A – 10/06/2014 Test No. DU08A – 18/06/2014
12	BRANZ	Thermal Insulation Report – Earthwool New Zealand 105 mm, R3.2	Project Number DI0468 Test No. DU01A – 6/06/2014
13	BRANZ	Thermal Insulation Report – Earthwool New Zealand 140 mm, R4.1	Project Number DI0522 Test No. DU01A – 19/05/2015
14	BRANZ	Thermal Insulation Report – Earthwool New Zealand	Project Number DI0653

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		130 mm, R2.9	Test No. DU01A – 6/06/2017
15	Knauf Insulation	Engineer's report – Technical Report: Compliance of Cwmbrian products to AS/NZS 4859.1(2018) 50:90 thermal requirements	Document No.: NPD_CP_PR_0014 30/04/2020
16	Marshall Day Acoustics	INSUL Materials Editor – Knauf Key No. 1715	v8.0.10 23/03/2018
17	Marshall Day Acoustics	Assessment report Ref: Rp 002 20170139 – Knauf Insulation Cavity Infill Substitution	6/09/2019
18	Standards New Zealand	AS/NZS 4859.1:2018 Thermal insulation materials for buildings – Part 1: General criteria and technical provisions	2018
19	Standards New Zealand	NZS 4214:2006 Methods of Determining the Total Thermal Resistance of Parts of Buildings	2006
20	Standards New Zealand	NZS 4246:2016 Energy efficiency – Installing bulk thermal insulation in residential buildings	2016
21	Standards New Zealand	NZS 4218:2009 Thermal Insulation – Housing and Small Buildings	2009
22	Knauf Insulation	Material Safety Data Sheet: Glass Mineral Wool with ECOSE® Technology	October 2014
14 CONDITIONS RELATING TO NOTIFICATION			
<p>(a) the certificate holder notifies the product certification body in writing of any intended change to any of the following particulars:</p> <ul style="list-style-type: none"> (i) the name, address, or contact details of the certificate holder: (ii) any address of a location where a certified product is produced or manufactured: <p>(b) the certificate holder notifies the product certification body in writing of any intended change, modification, or alteration to any of the following:</p> <ul style="list-style-type: none"> (i) the certified building method or product: (ii) the method of its production or manufacture: (iii) the product quality plan prepared in respect of the certified building method or product: (iv) the application or installation instructions for the certified building method or product: (v) any documentation relating to the use and maintenance of the certified building method or product: <p>(c) if the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body in writing of the reason for that suspicion:</p> <p>(d) if the certificate holder or the product certification body finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to the chief executive:</p> <p>(e) if the certificate is suspended or revoked, the certificate holder—</p> <ul style="list-style-type: none"> (i) notifies all customers to whom the building method or product is regularly supplied; and 			



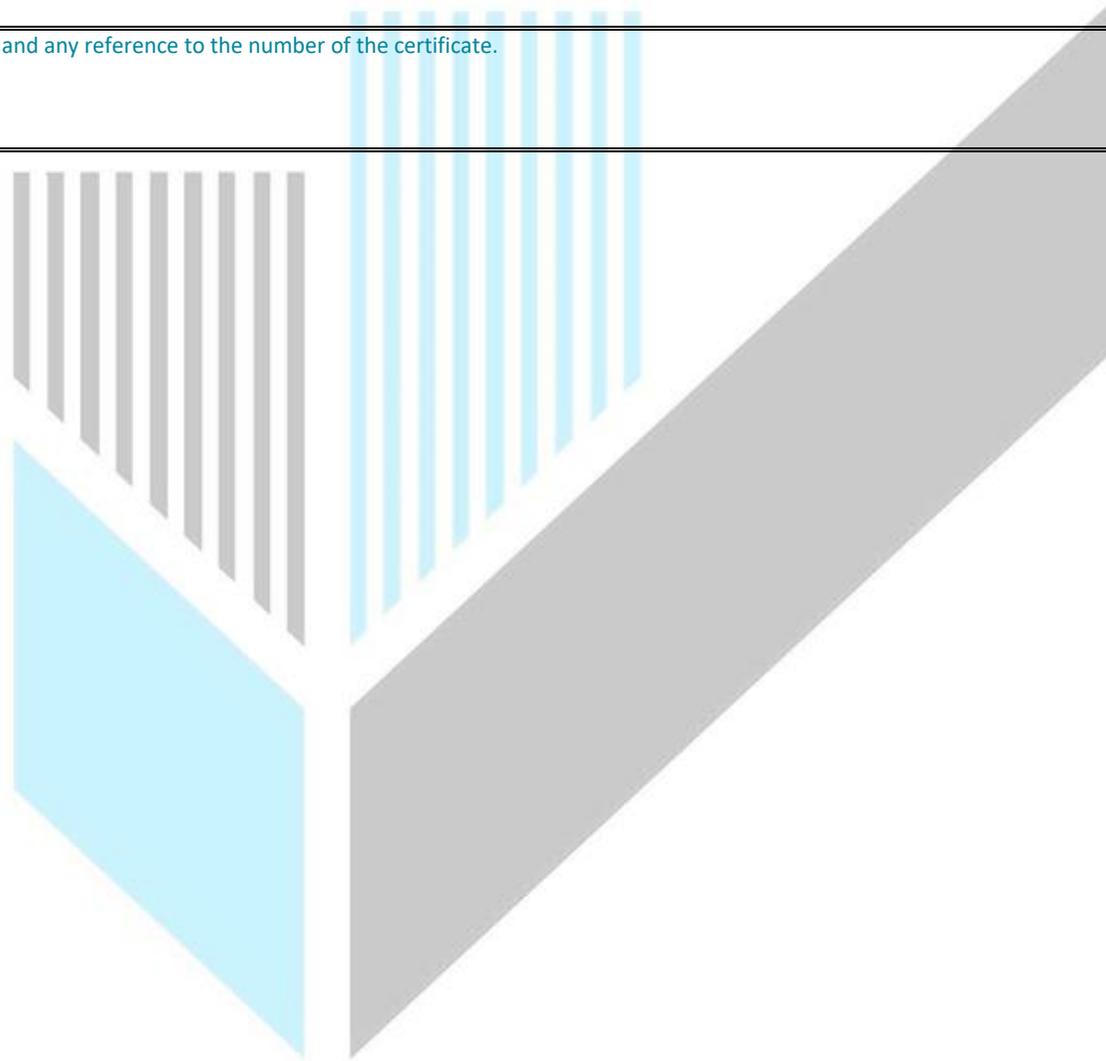
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(ii) immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate.

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