

Building Product Information Sheet - Class 1

Knauf Insulation glasswool

Product description and its intended use:

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/m³ and 32 kg/m³ with binder content no greater than 8%.

Products:

Ceiling

CEILING SEGMENTS

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
683674	3.3	0.047	155	430	1160	10.5	21
812468	3.4	0.033	110	580	1160	4.7	7
731850	3.6	0.049	175	430	1160	8.5	17
731846	4.1	0.048	195	430	1160	7.5	15
683653	5.2	0.040	210	430	1160	5.5	11
683654	6.3	0.044	275	430	1160	5.5	11
779551	7.0	0.047	330	460	1200	4.4	8
779554	8.0	0.041	330	460	1200	3.3	6

All dimensions are nominal.

SKILLION ROOF

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
683642	3.2 SKILLION	0.033	105	430	1160	5.5	11
779683	5.0 SKILLION	0.033	165	430	1160	3.0	6
781973	6.0 SKILLION	0.036	215	430	1160	3.5	7
781979	7.4 SKILLION	0.036	265	430	1160	3.0	6

All dimensions are nominal.

CEILING ROLL

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Rolls per pack
690936	3.6	0.042	150	1200	7000	8.4	1

All dimensions are nominal.

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Ceiling Rolls

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Rolls per pack
690852	1.8	0.039	70	1200	13500	16.2	1
690928	2.9	0.040	115	1200	8500	10.2	1
690934	3.2	0.042	135	1200	8000	9.6	1
690936	3.6	0.042	150	1200	7000	8.4	1

All dimensions are nominal.

Roof Blanket

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
683665	1.9	0.039	75	1200	23000	27.6	1
683666	2.4	0.042	100	1200	17500	21.0	1
683667	3.1	0.039	120	1200	14500	17.4	1
683668	3.3	0.039	130	1200	13500	16.2	1

All dimensions are nominal.

Multi-Use Roll

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Rolls per pack
807198	2.6	0.034	90	430	8500	3.65	1
807200	2.6	0.034	90	580	8500	4.93	1

All dimensions are nominal.

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Walls

45mm Frame

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
781975	1.3	0.035	45	450	1160	12.5	24

All dimensions are nominal.

90mm Frame

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
683644	2.2	0.041	90	580	1160	19.5	29
683645	2.4	0.037	90	580	1160	13.5	20
683655	2.6 ^{HD} Soundshield	0.035	90	430	1160	7.0	14
683656	2.6 ^{HD} Soundshield	0.035	90	580	1160	9.4	14
683646	2.8 ^{SHD} Soundshield Plus	0.032	90	430	1160	5.0	10
683647	2.8 ^{SHD} Soundshield Plus	0.032	90	580	1160	6.7	10

All dimensions are nominal. HD = High Density, SHD = Superr High Density

140mm Frame

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
683648	3.2	0.044	140	580	1160	14.8	22
683641	3.6	0.039	140	580	1160	10.9	15
691267	4.1 ^{SHD} Soundshield Plus	0.034	140	580	1160	6.1	9
779911	4.4 ^{SHD} Soundshield Plus	0.032	140	580	1160	4.0	6

All dimensions are nominal. HD = High Density, SHD = Superr High Density

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Acoustic segments

TIMBER FRAME PARTITION WALLS

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Density (kg/m ³)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per Pack
683655	2.6	0.035	20.1	90	430	1160	7.0	14
683656	2.6	0.035	20.1	90	580	1160	9.4	14
683646	2.8	0.032	30.7	90	430	1160	5.0	10
683647	2.8	0.032	30.7	90	580	1160	6.7	10
683641	3.6	0.039	13.4	140	580	1160	10.1	15
691267	4.1	0.035	22.6	140	580	1160	6.1	9
779911	4.4	0.032	36.0	140	580	1160	4.0	6

All densities and dimensions are nominal. *Estimated R-value.

STEEL FRAME PARTITION WALLS

Product Code	Est. R-Value (m ² K/W)	Est. Thermal Conductivity (W/mK)	Density (kg/m ³)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per Pack
683669	1.3	0.039	11.0	50	600	2700*	32.4	20
683670	1.9	0.040	11.0	75	600	2700*	22.7	14

All densities and dimensions are nominal. *Folded segments.

MID-FLOOR

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Density (kg/m ³)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per Pack
683655	2.6	0.035	20.1	90	430	1160	7.0	14
683646	2.8	0.032	30.7	90	430	1160	5.0	10

All densities and dimensions are nominal.

SKILLION ROOF

Product Code	R-Value (m ² K/W)	Thermal Conductivity (W/mK)	Density (kg/m ³)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per Pack
683642	3.2 SKILLION	0.033	26.5	105	430	1160	5.5	11
779683	5.0 SKILLION	0.033	29.0	165	430	1160	3.0	6
781973	6.0 SKILLION	0.036	17.5	215	430	1160	3.5	7
781979	7.4 SKILLION	0.036	18.0	265	430	1160	3.0	6

All densities and dimensions are nominal.

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Floorshield Underfloor Batt

Product Code	R-Value (m ² K/W)	Thermal conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
691130	2.6	0.035	90	420	1160	2.9	6
764622	2.6	0.035	90	420	1160	5.4	11

All dimensions are nominal.

Underfloor Roll

Product Code	R-Value (m ² K/W)	Thermal conductivity (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Rolls per pack
683671	1.8	0.042	75	500	10000	10	2
723803	1.8	0.042	75	600	10000	12	2

All dimensions are nominal.

Quilted Underfloor

Product Code	R-Value (m ² K/W)	Lambda (W/mK)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
596252	1.5	0.047	70	470*	2700	19.0	15

All dimensions are nominal | *glasswool is 470mm wide plus tabs for stapling.

External Ductwrap

Product Code	R-Value (m ² K/W)	Density (kg/m ³)	Thickness (mm)	Width (mm)	Length (mm)	Area per pack (m ²)
683677*	0.7	28	25	1200	18000	21.6
683676	1.2	28	40	1200	12000	14.4
690950	1.5	28	50	1200	9000	10.8

The Aluminium facing can be exposed to temperatures up to 80°C. | Nominal thickness. | *Without TwinTech

Building code compliance:

Clause B2 DURABILITY: Knauf Insulation products will meet these requirements.

Knauf Insulation glasswool, if designed, used, installed and maintained in accordance with the statements and conditions set out in the supporting technical literature, will meet or contribute to meeting the Durability provisions of the NZBC (New Zealand Building Code). Where the building is maintained so that provisions of the NZBC E2 and E3 Clauses are met, and where the insulation is not crushed or exposed to conditions that will diminish its material specifications, Knauf Insulation glasswool can expect to have a serviceable life of at least 50 years'.

Clause C/AS2 protection from fire:

Knauf Insulation products are non-combustible building materials, if designed, used, installed and maintained in accordance with the statements and conditions set out in the supporting technical literature, will meet or contribute to meeting protection from the C/AS2 fire clause of the NZBC. Knauf Insulation products non-combustibility is supported by testing and compliance to AS1530.1 and BS EN 13501-1.

H1 Energy Efficiency Building Code Compliance:

Knauf Insulation products will contribute to meeting these requirements, if designed, used, installed and maintained in accordance with the statements and conditions set out in the supporting technical literature. Knauf Insulation products offers a range of thicknesses, R-values and thermal conductivities that assist in meeting and exceeding the Building Code requirements. Thermal properties are confirmed by a range of C518 and AS/NZS 4859.1 testing, inline with the building codes acceptable solutions.

Clauses E2 External and E3 Internal Moisture:

Knauf Insulation products will contribute to meeting these requirements, if designed, used, installed, and maintained in accordance with the statements and conditions set out in the supporting technical literature. Knauf Insulation products when incorporated in the building design will provide adequate thermal resistance to meet the building code requirements.

Limitations on the use of the building product:

Specification and incorporation of Knauf 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.

Installation shall be carried out by a person with knowledge of insulation installation 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 Knauf Insulation/Earthwool® glasswool installation instructions as specified below available at www.knaufinsulation.co.nz.

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. In residential construction, installation shall also be carried out in accordance with NZS 4246:2016 Energy efficiency – Installing bulk thermal insulation in residential building.

Technical documentation to support the appropriate use of the building product:

Click here to view all technical documents as listed below.

Earthwool® glasswool ceiling datasheet, Earthwool® glasswool Ceiling roll datasheet, Earthwool® glasswool Roof blanket datasheet, Earthwool® glasswool Multi-use roll datasheet, Earthwool® glasswool Wall datasheet, Knauf Insulation Acoustic segments datasheet, Earthwool® glasswool Quilted Underfloor datasheet, Earthwool® glasswool Underfloor roll datasheet, Earthwool® glasswool Floorshield Underfloor batt datasheet, Knauf Insulation Climacoustic Ductwrap datasheet, Material Safety Datasheet

Installation requirements:

Technical documentation and installation instructions to support the appropriate installation of the products.

Click here to view all technical documents as listed below.

Ceiling batts installation instructions, Ceiling Batts Installation Instructions (R7.0 and R8.0),
Ceiling rolls installation instructions, Wall batts installation instructions, Wall batts installation instructions (R1.3),
Faced underfloor roll installation instructions, Earthwool® glasswool Floorshield underfloor installation instructions

Maintenance requirements:

Insulation that has become damp must be removed and the cause of dampness repaired. Cavities must be clean and dry before fitting new insulation of an equivalent thermal rating. NZS 4246 gives guidance on thermal insulation maintenance due to water damage.

Earthwool® glasswool insulation and Knauf Insulation glasswool with DriTherm® Technology may be dried and retrofitted into the dried cavity if the cause of dampness was a potable water leak.

This product is not subject to warning or ban under section 26 of the Building Act 2004.