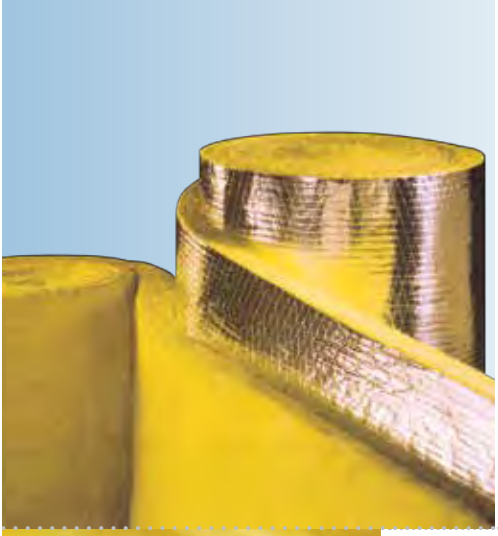


Thermacon Building Blanket

DESCRIPTION

Thermacon Building Blanket is a highly efficient, light weight, strong, resilient and easy to handle flexible blanket insulation composed of fine, stable and uniformly textured inorganic glass fibers bonded together by a non-water soluble and fire retardant thermosetting and heat resistant resin.

It is free from coarse fiber and shot due to its mineral composition.

APPLICATION

Thermacon Building Blanket is intended for use in commercial, institutional, industrial, agricultural and residential construction as thermal, acoustic and vapour control insulation for the metal deck roofs and walls. Also including cavity walls, partitions, pre-fabricated housing and backloading of existing ceilings.

Thermacon Building Blanket is also suitable to be applied to concrete soffits in commercial shopping centre, undercroft carparks and the like.

FACING

Thermacon Building Blanket is available unfaced, or laminated with factory-applied FSKF Foil Facing, RP-51 Heavy Duty Woven Foil facing, Silver perforated, White Cap plain Foil facing and White Cap perforated foil facing.

DENSITY

12kg/m^3 - 14 kg/m^3

STANDARD NOMINAL DIMENSIONS

Check for availability of other dimensions and densities.

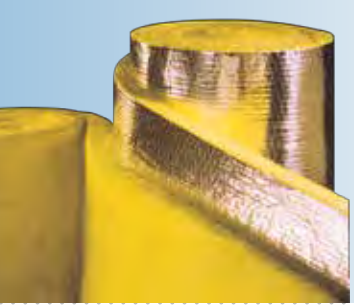
Thickness	Width	Length	Densities
mm	mm	m	kg/m³
25	400	10	12 - 14
38		to	
55	to	36	
64			
75			
89	1.2m	Depending on thickness	
100			
110			
150			

* Standard Products and Sizes

DECLARED R-VALUE

(Tested in accordance with AS4859.1 2018)

Thickness	Thermal conductivity (K)	Thermal resistance (R)
mm	W/m.°C	m².°C/W
55	0.040	1.3
60	0.040	1.4
75	0.040	1.8
100	0.040	2.5
110	0.040	2.5
130	0.040	3.2
145	0.040	3.6
150	0.040	3.75



Thermacon Building Blanket

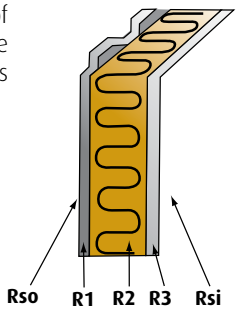
Technical Data Sheet
Product Code: **BKT**

Performance & Physical Characteristics

The U value is the reciprocal of the sum of the resistances of the component of the structure plus the resistance of the surfaces and any cavities within the structure.

$$\text{Here } U = \frac{1}{Rso + R1 + R2 + R3 + Rsi}$$

Rso = Outside surface resistance
R1 = External sheeting
R2 = AFICO insulation
R3 = Internal sheeting or lining if any
Rsi = Inside surface resistance



Working Temperature Limitations (ASTM C 411)

-4°C to +260°C. At excessive temperatures, a limited migration of binder may occur in the insulation in contact with the hot surface. This in no way impairs the performance of the insulation.

Alkalinity (ASTM C 871)

pH 9

Corrosiveness (ASTM C 665)

Chemically inert. Will not cause or accelerate corrosion of steel, stainless steel, copper or aluminum, due to its particular inorganic and mineral composition.

Mold Growth (ASTM D 2020, UL 181)

Does not breed or sustain mold, fungus, bacteria or rodents.

Moisture Absorption (ASTM D-07 B, ASTM C 553)

In conditions of 95% relative humidity at 49°C for 96 hours, moisture absorption is less than 0.2% by volume, when tested in accordance with ASTM C 533. Thermcon Building Blanket products do not absorb moisture from the ambient air nor water by capillary attraction, only water under pressure can enter the insulation products but that will quickly dry out owing to the material's open cell structure.

Thermal Resistance "R" Value (Unfaced) (ASTM C 518)(AS4859.1)

Tested in accordance to AS4859.1

"R" is a measure of the resistance to heat flow of a material of any given thickness. ("R" = m².°C/W or hr. ft².°F/Btu.)

$$R = \frac{T}{K}$$

where "T" = thickness
and "K" or "λ" = thermal conductivity

Thermal Conductance, "C" - Value (A STM C 518, A STM C 177)

$$C = \frac{1}{R} = W/m^2.°C \text{ or } Btu/\ hr.ft^2.°F.$$

It is the ability of the product to conduct heat.

Thermal Transmittance (U Value)

Thermal transmittance is the rate of heat flow through unit area of a wall system when unit temperature difference exists between air on each side of the structure.

Fire Properties

1) AS1530 Part 3

Ignitability Index	Spread of Flame	Heat Evolved	Smoke Developed
0	0	0	1

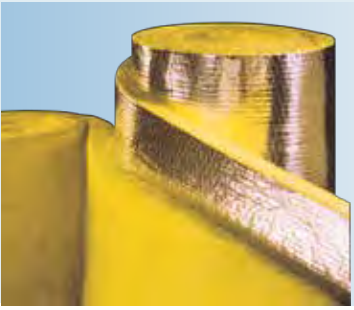
2) AS ISO 9705:2003 R 2016 and AS5637.1:2015 Group 1

3) Base Unfaced Glasswool Non-Combustible
ASTM E84
BS476 Part 4

Acoustical Performance (ASTM C 423)

Sound Absorption Coeffecients at Frequencies (Hz)
Table 1-1
Sound Absorption Coeffecients
Thermacon **Building Blanket**

Product Type & Thickness	Mounting (1)	Sound Absorption Coefficients Octave Band Center Frequencies, Hz						
		125	250	500	1000	2000	4000	NRC
75mm R1.8 (R11), insulation exposed to sound	A	.34	.85	1.09	.97	.97	1.12	.95
130mm R3.2(R19), insulation exposed to sound	A	.64	1.14	1.09	.99	1.00	1.21	1.05
75mm R1.8 (R11), insulation exposed to sound	E-405	.80	.98	1.01	1.04	.98	1.15	1.00
130mm R3.2 (R19), insulation exposed to sound	E-405	.86	1.03	1.13	1.02	1.04	1.13	1.05
75mm R1.8 (R19) foil faced exposed to sound	A	.56	1.11	1.16	.61	.40	.21	.80
130mm R3.2 (R19), foil faced exposed to sound	A	.94	1.33	1.02	.71	.56	.39	.90



Thermacon Building Blanket

Technical Data Sheet
Product Code: **BKT**

Performance & Physical Characteristics

Table 1-2
Sound Absorption Coefficients, Fiberglass noise barrier batts - 16kg/m^3

Product Type & Thickness	Mounting Octave	Band Center Frequencies, Hz (1)						
		125	250	500	1000	2000	4000	NRC
64mm	A	.21	.62	.93	.92	.91	1.03	.85
75mm	A	.38	.88	1.13	1.03	.97	1.12	1.00
64mm	E-405	.59	.84	.79	.94	.96	1.12	.90
75mm	E-405	.73	.98	.98	1.05	1.08	1.15	1.00

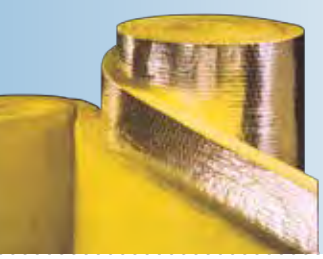
Notes to Tables:
(1) Mounting
* Type A (formerly no. 4) – Material placed against a solid backing such as a block wall.
* E-405 (formerly no. 7)- Material placed over a 16-inch air space. Data include exposed to sound source, if specified.

According to AS 42002:2017

Duty Classification and Allowable Usage in Australia

Metal sheet roofing, ceilings and floors		
< 900 mm spans	Light duty	Light duty
>900 to < 1200 mm spans	Light duty	Medium duty
> 1200 mm spans	Medium duty	*

* Installation recommendation use support mesh with all of the above



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MAINTENANCE

No maintenance is required Thermacon **Building Blanket** have a high resistance to accidental damage from knocks and handling during installation and maintenance. Dimensionally stable under varying conditions of temperature and humidity, rot-proof, odourless, non-hygroscopic and will not sustain vermin or fungus due to its inorganic and mineral compositions.

The product will maintain its thermal properties throughout the lifetime of the construction and will not age. Thermacon Building Blanket is non toxic and not hazardous to health.

STORAGE

To avoid moisture in the building construction, Thermacon insulation products stored outside must be kept dry. We recommend Thermacon products to be always stored in covered and dry areas. Thermacon is not liable for the damage resulting from inadequate utilization, loading and off loading and mishandling of its products.

Authorized Distributor

THERMACON INSULATION

16 Hodgson Way
Kewdale WA 6105

T: (08) **9353 6033**

thermacon@thermacon.com.au

www.thermacon.com.au

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