



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 and acoustical insulation for the interior, exterior and cavity walls applications, Roofing systems, partitions, prefabricated houses, poultry farms, ceilings and as back loading of existing ceiling systems.



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/m³ - 14 kg/m³



STANDARD NOMINAL DIMENSIONS

Check for availability of other dimensions and densities.

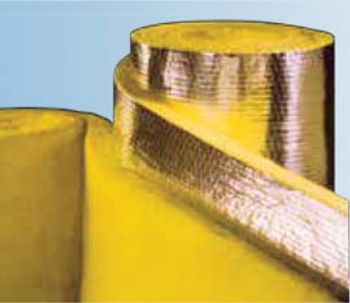
Thickness	Width	Length	Densities
mm	mm	m	kg/m ³
25	400	10	10-12
38	410	to	
55	600		
64	610	36	
75	1200	Depending on thickness	
89	1220		
100			
110			
150			



NOMINAL THERMAL CONDUCTIVITY

(at 24°C or 75°F mean temperature) (ASTM C 518) (BS 874)

Thickness	Thermal conductivity (K)	Thermal resistance (R)
mm	W/m.°C	m ² .°C/W
55	0.040	1.3
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



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Technical Data Sheet
Product Code: **BKT**

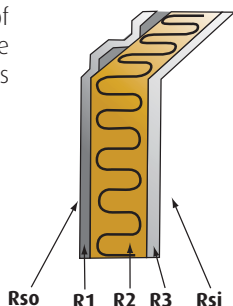


Performance & Physical Characteristics

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.

$$\text{Here } U = \frac{1}{R_{so} + R_1 + R_2 + R_3 + R_{si}}$$

- R_{so}** = Outside surface resistance
- R₁** = External sheeting
- R₂** = AFICO insulation
- R₃** = Internal sheeting or lining if any
- R_{si}** = 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. Thermacon 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.

Vapor Permeability (ASTM E96A)

KRAFT 1.00 PERM

FRK 0.02 PERM

Puncture Resistance (ASTM D 781)

FRK 25 Units

Compressive Strength

PCF AT 10% DEFORMATION 5

PCF AT 25% DEFORMATION 10

Surface Burning Characteristics (UL 723, ASTM E 84, ASTM E 136)

Base glass fiber is non-combustible when tested to ASTM E84.

Facing	Flame Spread	Smoke Developed	Fuel Contributed
FRK	0	0	0

Thermal Resistance "R" Value (Unfaced) (ASTM C 167)(AS48591)

"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.)

$$R = \frac{T}{K} \text{ where "T" = thickness and "K" or "λ" = thermal conductivity}$$

Thermal Conductance, "C"- Value (ASTM C 518, ASTM 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 (AS1530 Part 3.000-1)

- B.S. 476 PART 4 – Non-combustible
- B.S. 476 PART 5 – Ignitability
- B.S. 476 PART 6 – Fire propagation
- B.S. 476 PART 7 – Surface spread of flame
- Class 'O' fire rating to the building regulations section E15

Specification Compliance

Thermacon Building Blanket complies with the property requirements of the following specifications:

- UNFACED - U.S. Federal spec. HH-I-521 E Type I
- KRAFT FACED-U.S. Federal Spec. HH-I-521 E Type II, Class C
- FRK FACED - U.S. Federal Spec. HH-I-521 F, Type III, Class A, ASTM C 665
- DCL ASTM - C 533 - C 547 - C 612 - C 665
- CE-EN 13162

Acoustical Performance (ASTM C 423)

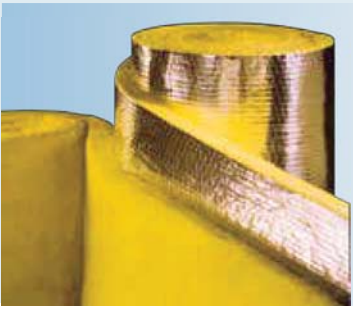
Sound Absorption Coefficients at Frequencies (Hz)

Table 1-1

Sound Absorption Coefficients

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



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Performance & Physical Characteristics

Table 1-2

Sound Absorption Coefficients, Fiberglass noise barrier batts - 16kg/m³

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.

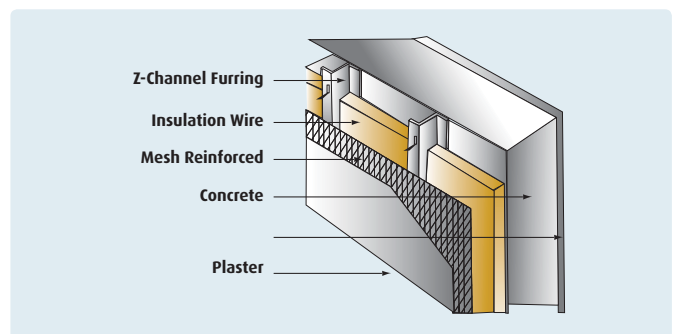
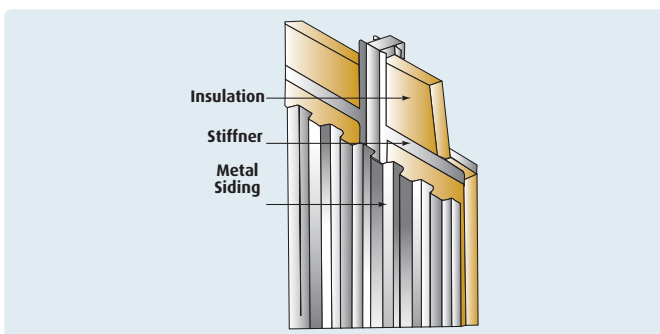
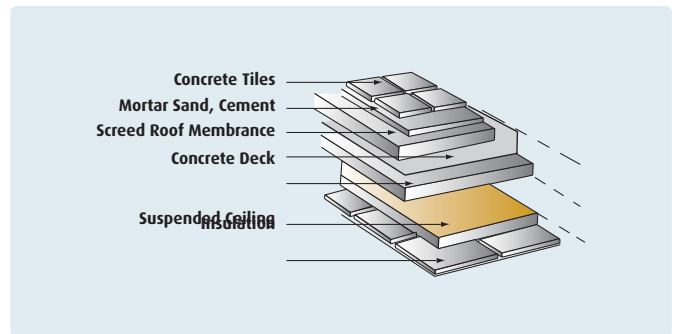
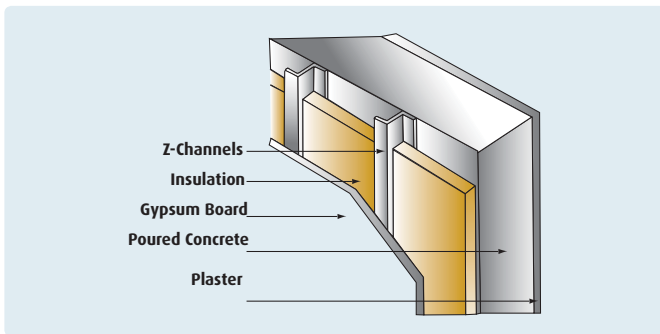
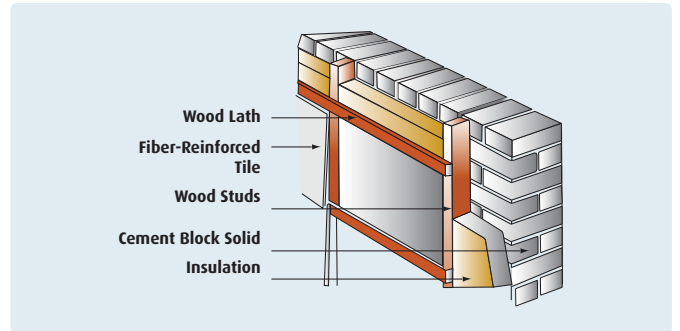
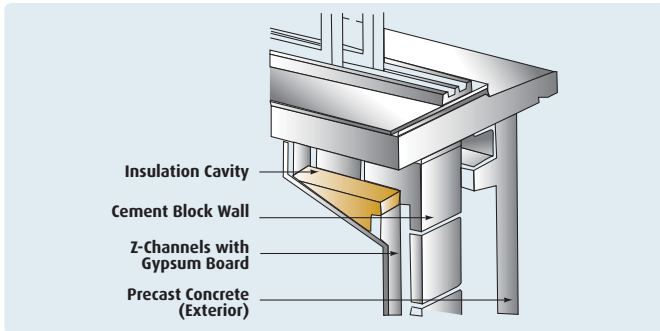
Installation

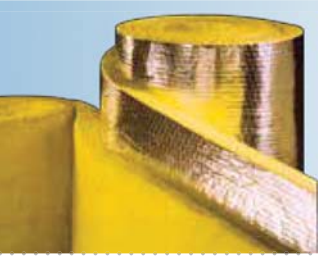
Thermacon Building Blanket can be installed quickly and easily in virtually any type of construction.

Between metal studs or Z channels, the insulation can be friction-fit in place while the interior finish is applied. In areas where it will be applied in heights over 2.5m, supplementary support should be provided to hold the insulation in place while the interior finish is applied.

When applied to masonry walls, the insulation can be fixed by impaling on pins or other similar attachments and then affixing a locking washer to hold the insulation in place.

For ceiling installations, the insulation is simply laid out on top of ceiling panels or other suspension systems.





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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



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