



# Blanket Insulation (BKT)



### Product Description

AFICO Blanket Insulation 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.

### Facing

AFICO Blanket Insulation is available unfaced or laminated with factory-applied Kraft Paper, or Aluminum Foil Reinforced Kraft Paper Laminate (FRK), the White All Service Jacket (ASJ) and the Aluminum Foil Woven Fiberglass Jacket (AWF) to give a pleasing appearance vapor barrier. The facings have UL fire resistant ratings.

### Application

AFICO Blanket Insulation 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, partitions, prefabricated houses, poultry farms, ceilings and as back loading of existing ceiling systems

The semi-rigid blankets with densities from 12 to 56 kg/m<sup>3</sup>, 0.75-3.5 lb/ft<sup>3</sup> with standard size 1.2m width and 20m length are flexible insulation rolls for application over irregularly shaped surfaces where rigidity properties are desired.

### Standard Available Products

Nominal Manufacturing Specifications. With K and R values @ 24°C. Check for availability of other dimensions and densities

Product Type	Density		K Value@24°C		R Value / Thickness											
	Kg/m <sup>3</sup>	Lb/ft <sup>3</sup>	W/m <sup>2</sup> ·°K	BTU·in/hr·ft <sup>2</sup> ·°F	25 mm	1 in.	50 mm	2 in.	75 mm	3 in.	100 mm	4 in.	150 mm	6 in.	200 mm	8 in.
120	12	0.75	0.040	0.28	0.63	3.51	1.25	7.03	1.88	10.5	2.5	14.1	3.75	21.1	5.00	28.1
140	14	0.875	0.038	0.27	0.66	3.64	1.32	7.29	1.97	10.9	2.63	14.6	3.95	21.9	5.26	29.2
160	16	1	0.037	0.26	0.68	3.78	1.35	7.57	2.03	11.4	2.7	15.1	4.05	22.7	5.41	30.3
180	18	1.125	0.036	0.25	0.69	3.94	1.39	7.87	2.08	11.8	2.78	15.7	4.17	23.6	5.56	31.5
200	20	1.25	0.036	0.25	0.69	3.94	1.39	7.87	2.08	11.8	2.78	15.7	4.17	-	-	-
240	24	1.5	0.034	0.24	0.74	4.10	1.47	8.20	2.21	12.3	2.94	16.4	4.48	-	-	-
320	32	2	0.033	0.23	0.76	4.28	1.52	8.56	2.27	12.83	3.03	17.11	-	-	-	-
480	48	3	0.031	0.22	0.81	4.47	1.61	8.95	-	-	-	-	-	-	-	-
560	56	3.5	0.031	0.21	0.81	4.69	1.61	9.37	-	-	-	-	-	-	-	-

Other thickness available upon request and verification





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## Performance & Physical Characteristics

### Apparent Thermal Conductivity (ASTM C518 EN12667)

W/m·°K or Btu-in/hr-ft<sup>2</sup>·°F for all product range "K" or "λ" value at mean temperatures  
Data for 10, 24 and 35°C mean temperature

Product Type	Density		Mean Temperature					
	Kg/m <sup>3</sup>	lb/ft <sup>3</sup>	10°C	50°F	24°C	75°F	35°C	95°F
BKT								
120	12	0.75	0.036	0.25	0.040	0.28	0.041	0.29
140	14	0.875	0.034	0.24	0.038	0.27	0.040	0.27
160	16	1	0.034	0.24	0.037	0.26	0.039	0.27
180	18	1.125	0.033	0.23	0.036	0.25	0.037	0.26
200	20	1.25	0.033	0.23	0.036	0.25	0.037	0.26
240	24	1.5	0.032	0.22	0.034	0.24	0.036	0.25
320	32	2	0.031	0.21	0.033	0.23	0.034	0.24
480	48	3	0.030	0.21	0.031	0.22	0.033	0.23
560	56	3.5	0.029	0.20	0.031	0.21	0.032	0.22

### Thermal Resistance "R" Value (ASTM C518)

"R" is a measure of the resistance to heat flow of a material of any given thickness.  
("R" = m<sup>2</sup>·°K/W or hr-ft<sup>2</sup>·°F/Btu)

$$R = \frac{l}{k} \quad \text{Where "l" = Thickness}$$

$$\quad \quad \quad \text{Where "k" or "λ" = Thermal Conductivity}$$

### Thermal Transmittance "U" Value (ASTM C168)

"U" is a measure of how much heat is lost through a given thickness of a particular material.  
("U" = W/m<sup>2</sup>·°C or Btu/hr·ft<sup>2</sup>·°F)

$$U = \frac{1}{Rt} \quad \text{Where "Rt" = Total Thermal Resistance}$$

$$\quad \quad \quad \text{Composed of all elements/layers}$$

U-Values are calculated from the thermal resistances of the parts making up a particular part of the structure. Transmission of heat is opposed in varying amounts dependent on material and surface.

U-Value (of building element) = 1 / (Rso+Rsi R1+Rs...)

Where Rso is the fixed external resistance  
Rsi is the fixed internal resistance  
R1, R2 etc are resistivity of all elements within the application including that of cavities within the construction.

### Example Calculation:

Layer & Material	Thickness & Conductivity	R Value
Rso - Fixed external resistance	-	0.40m <sup>2</sup> ·°K/W
Rsi - Fixed internal resistance	-	0.13m <sup>2</sup> ·°K/W
R1 - Fiberglass insulation	0.100m; 0.035 W/mK	2.85m <sup>2</sup> ·°K/W
R2 - Clay bricks	0.105m; 0.710 W/mK	0.15m <sup>2</sup> ·°K/W
R3 - Concrete blocks	0.100m; 0.018 W/mK	0.55m <sup>2</sup> ·°K/W
R4 - Plaster	0.013m; 0.016 W/mK	0.08m <sup>2</sup> ·°K/W
Total		4.16m <sup>2</sup> ·°K/W

Therefore the overall wall element U-value = 1/R = 1/4.16 = 0.24W/m<sup>2</sup>K

### Surface Burning Characteristics (ASTM E84, UL 723)

Base glass fiber is non-combustible when tested.

Facing	Flame Spread	Smoke Developed
Unfaced	0	0
FRK	≤ 25	≤ 50
ASJ	≤ 25	≤ 50
AWF	≤ 25	≤ 50

### Working Temperature Limitations (ASTM C411)

Operating temperature up to 232°C. At excessive temperatures, limited migration of binder may occur in the insulation in contact with the surface. This is in no way impairs the performance of the insulation.

### Mold Growth (ASTM C1338)

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

### Corrosiveness (ASTM C665)

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

### Water Vapor Sorption (ASTM C1104)

Less than 1% per weight.

### Odor Emission (ASTM C1304)

Passed, no detectable odor that is objectionable and strong.

### Alkalinity (ASTM C871)

pH 9

### Non-Fibrous (Shot) Content (ASTM C1335)

Not applicable to glass mineral fiber products.

### Specification Compliance

AFICO Blanket Insulation complies with the standard specification requirements of the following specifications:

- DCI** : ASTM C665, Type I, Type II and Type III with different Classes and Categories : ASTM C553 Type I, Type II and Type III
- CE-EN** : EN 13162-T1-1121-CPD-BA0137
- UL 723** : Classified as FHC 25/50 File no R27731

**ASTM C795** : Thermal Insulation for use in contact with Austenitic Stainless Steel tested

**SASO** : SASO EN 13162 License # 20240660861

**Global Green Tag** : ARA:DS01:2025:GR

**Global Green Tag** : ARA:DS01:2024:PH

**Emirates GBC** : EmiratesGBC

**SCS Global** : SCS-HPD-09461

SCS-RC-02810

SCS-IAQ-07373

SCS-EPD-08452

### Fire Properties

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 '0' fire rating to the building regulations sections E15

### Facing Information (Flexible Vapor Barrier)

ASTM C 1136 Standard specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation

### Vapor Permeability (ASTM E 96 A)

Kraft: 1.0 perms

FRK: 0.02 perms

ASJ: 0.02 perms

AWF: 0.00 perms

### Puncture Resistance

Kraft: 25 beach units

FRK: 25 beach units

ASJ: 85 beach units

AWF: 1170 beach units

### Acoustical Performance (ASTM C423)

Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

Nominal NRC Values

Product Type	Density		Thickness			
	Kg/m <sup>3</sup>	lb/ft <sup>3</sup>	25mm	50mm	75mm	100mm
120	12	0.75	0.55	0.80	1.00	1.15
140	14	0.875	0.55	0.85	1.05	1.15
160	16	1	0.60	0.85	1.05	1.20
180	18	1.125	0.60	0.85	1.05	1.20
200	20	1.25	0.60	0.90	1.10	1.25
240	24	1.5	0.65	0.90	1.10	1.25
320	32	2	0.65	0.95	1.15	1.30
480	48	3	0.73	1.00	1.20	-
560	56	3.5	0.75	1.05	1.20	-

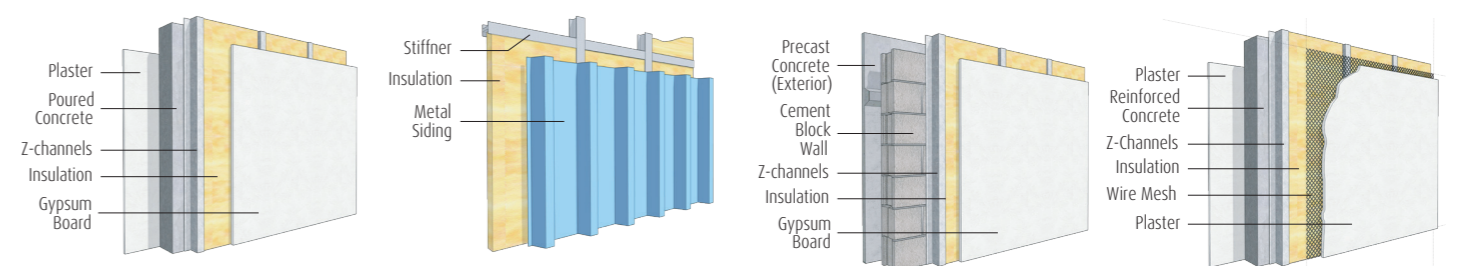
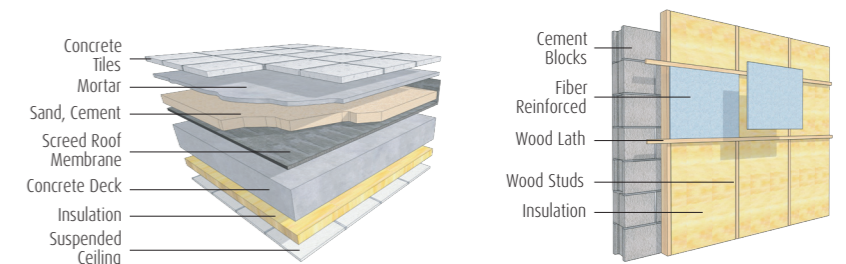
### Installation Recommendation

AFICO Blanket Insulation 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 insulation in place while the interior finish is applied.

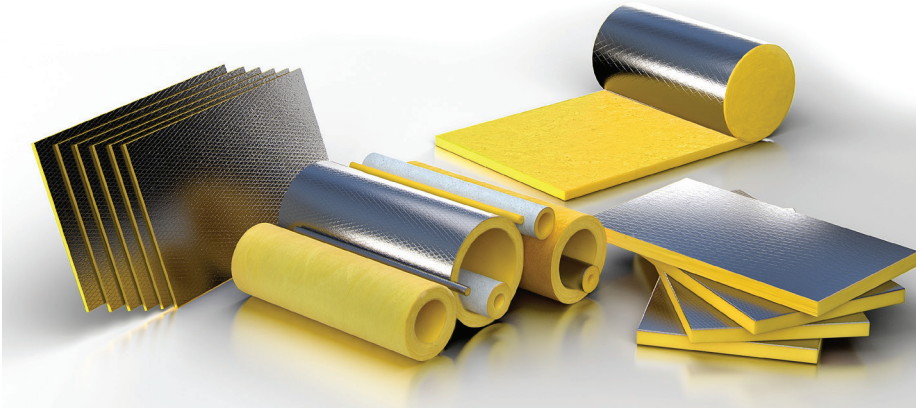
**When Applied to Masonry Walls:** the insulation can be fixed by impaling on pins or other similar attachments and then affixing a locking washer to hold the insulation in place.

**For Ceiling Installations:** the insulation is simply laid out on top of ceiling panels or other suspension systems.





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### Our Product Range includes

- Cavity Wall Insulation • Blanket Insulation • Duct Liner Board • Duct Liner • Faced Duct Wrap • Quiet Liner
- Thermal Insulating Wool • Pipe Wrap Insulation • Quiet Liner Board • Acoustical Ceiling Panels • Board Insulation
- Roof Deck Board Insulation • Heavy Density Pipe Insulation • HD Series Blanket Insulation
- Pre-engineered Metal Building Insulation • Mechanical Board Insulation

### Call us today for more information & professional guidance:

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Please send all email inquiries to [info@afico.com.sa](mailto:info@afico.com.sa)



## People & Planet Always First

AFICO's products are all energy saving, environmentally friendly, use even more recycled materials and contribute to the fight against global warming.

A Subsidiary of



AFICO operates as a subsidiary of Gulf Insulation Group, With Owens Corning serving as its technology partner

### Maintenance

No maintenance is required. AFICO Blanket Insulation products 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, odorless, 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. AFICO fiberglass is non-toxic and not hazardous to health.

### Storage

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

### Warranty

See manufacturer's General Terms and Conditions of Sale. As AFICO and/or OCF has no control over installation design, installation workmanship, accessory materials, or conditions of application, AFICO and/or OCF does not warrant the performance or results of any installation containing their products. This warranty disclaimer includes all implied warranties, including the warranties or merchantability and fitness for a particular purpose.

Arabian Fiberglass Insulation Company AFICO reserves the right to alter product specifications without prior notice, as part of its policy of continued development and improvement. The installation methods described in this leaflet are not compulsory. The choice of materials and methods of fixing are the decision of the specifier, consultant or contractor. For further information or advice on specification of products, contact your local, sales office.

### Availability

Manufactured by Arabian Fiberglass Insulation Company Ltd. (AFICO), a subsidiary wholly owned by Gulf Insulation Group. AFICO has headquarters and production facilities located in Dammam, Saudi Arabia, operating under license from and utilizing the manufacturing specifications and technology of Owens-Corning Corporation (OCF), Toledo, Ohio, U.S.A.

Marketed throughout Saudi Arabia, the G.C.C. countries, the Middle East, and the Far East, AFICO products are available directly as well as through a vast and reliable network of local distributors.



[afico.com.sa](http://afico.com.sa)

**Special products are manufactured on request.**