



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/m³, 0.75-3.5 lb/ ft³ 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 ³	Lb/ft ³	W/m ² ·°K	BTU·in/hr·ft ² ·°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	23.6	5.56	31.5
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	24.6	5.88	32.8
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
Densities over 20kg/m³ with thickness higher than 150mm available only with facing





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Performance & Physical Characteristics

Apparent Thermal Conductivity (ASTM C518, EN12667)

W/m·°K or Btu·in/hr·ft²·°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/m³	lb/ft³	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" = m²·°K/W or hr·ft²·°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/m²·°C or Btu/hr·ft²·°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	—	0.40m²·°K/W
Rsi - Fixed internal resistance	—	0.13m²·°K/W
R1 - Fiberglass insulation	0.100m; 0.035 W/mK	2.85m²·°K/W
R2 - Clay bricks	0.105m; 0.710 W/mK	0.15m²·°K/W
R3 - Concrete blocks	0.100m; 0.018 W/mK	0.55m²·°K/W
R4 - Plaster	0.013m; 0.016 W/mK	0.08m²·°K/W
Total		4.16m²·°K/W

Therefore the overall wall element U-value = 1/R = 1/4.16 = 0.24W/m²K

Surface Burning Characteristics (ASTM E84, UL723)

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 -4°C to 232°C. At excessive temperatures, limited migration of binder may occur in the insulation in contact with the surface. This in no way impairs the performance of the insulation.

Mold Growth (ASTM C 1338)

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 C 1104)

Less than 1% per weight.

Odor Emission (ASTM C 1304)

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:

DCL: 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

SCS: Recycled Content Certified
SCS-MC-02810

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

SASO: SASO GSO EN 13162

License # 201800652111

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 E96A)

Kraft: 1.0 perms

FRK: 0.02 perms

ASJ: 0.02 perms

AWF: 0.0012 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/m³	lb/ft³	25mm	50mm	75mm	100mm
BKT						
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	—

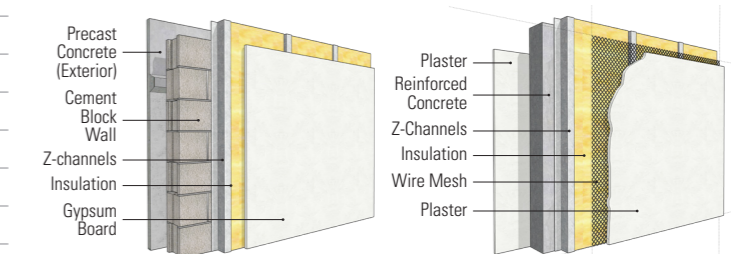
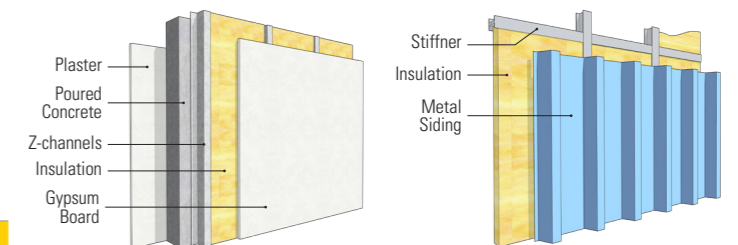
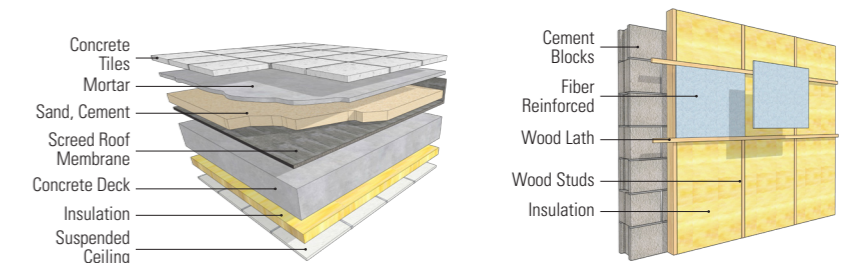
Installation Recommendation

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.

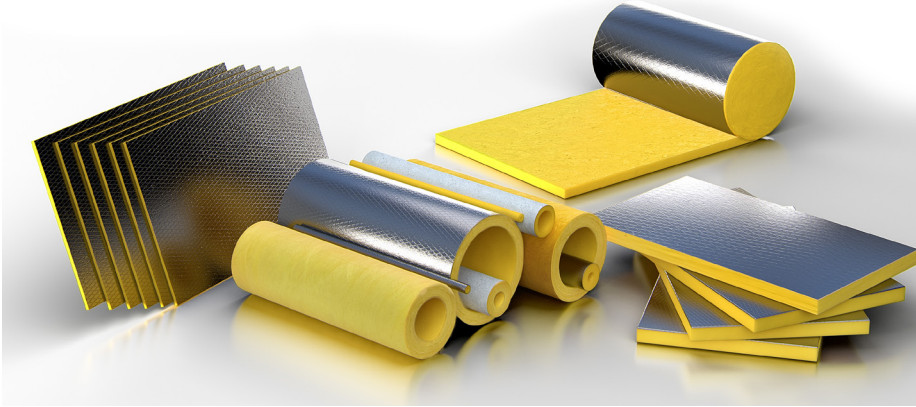
When Applied to Masonry Walls: the insulation can be fixed by impaling on pins or other similar attachments and then affixing a locking washer to hold the insulation in place.

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





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

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 member of Zamil Industrial Co. (ZI), with head-quarters and production facilities located in Dammam, Saudi Arabia, 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 from as well as through a vast and reliable network of local distributors.

Special products are manufactured on request.

Call us today for more information & professional guidance:

Dammam (H.O. & Factory): +966 13 331 3333

Riyadh: +966 11 472 5555

Jeddah: +966 12 670 0020

GCC & Int'l Export Office (Dubai): +971 4 294 1211

Egypt (Cairo): +20 100 009 9209

North Africa (Tunis): +216 2 053 1000

Please send all email inquiries to 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**.

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Zamil Industrial

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