

# افيكو AFICO

Arabian Fiberglass Insulation Company Ltd.  
J.V. of Zamil Industrial & Owens Corning Corp.

## AFICO Blanket Insulation (BKT)

Technical Data Sheet  
Product Code: **BKT**



### 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.



### APPLICATION

**AFICO Blanket Insulation** is intended for use in commercial, institutional, industrial, agricultural and residential construction as thermal and acoustical insulation for interior, exterior and cavity wall applications, partitions, prefabricated houses, poultry farms, ceilings and as back loading of existing ceiling systems.



### FACING

**AFICO Blanket Insulation** is available unfaced or laminated with factory-applied Kraft Paper, or Aluminum Foil Reinforced Kraft Paper Laminate (FRK) or other specific vapor barriers to prevent condensation.



### STANDARD NOMINAL DENSITY

10-12 kg/m<sup>3</sup> (0.625 - 0.75 lb/ft<sup>3</sup>) Nominal Manufacturing Specifications. Check for availability of other dimensions and densities.



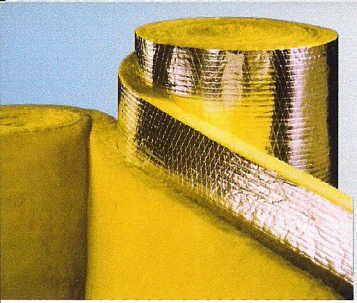
### NORMAL THERMAL CONDUCTIVITY (ASTM C 518)

"K" or "λ" = 0.040 W/m·°K or 0.28 Btu·in/hr·ft<sup>2</sup>·°F at 24 °C or 75 °F mean temperature

Density		Thickness		Thermal Resistance "R"		Width		Length	
kg/m <sup>3</sup>	lb/ft <sup>3</sup>	mm	inch	m <sup>2</sup> ·°K/W	hr·ft <sup>2</sup> ·°F/Btu	mm	inch	m	ft
		25	1	0.63	4				
10	0.625	38	1½	0.95	5	400	15	10	32
		50	2	1.25	7	410	16	15	49
		64	2½	1.60	9	600	20	20	65
12	0.75	75	3	1.88	11	610	25	25	82
		89	3½	2.23	13	1200	30	30	98
		100	4	2.50	14	1220	35	35	114
		150	6	3.75	21				

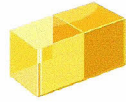
\* Depending on Thickness





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## Performance & Physical Characteristics

### Thermal Resistance "R" Value (ASTM C 167)

"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)

$$R = \frac{T}{K} \quad \text{where "T" = Thickness} \\ \text{and "K" or "λ" = Thermal Conductivity}$$

### Thermal Conductance "C" Value (ASTM C 518, ASTM C 177)

"C" It is ability of the product to conduct heat.

("C" = W/m<sup>2</sup>·°K or Btu/hr·ft<sup>2</sup>·°F)

$$C = \frac{1}{R} \quad \text{where "T" = Thickness} \\ \text{and "K" or "λ" = Thermal Conductance}$$

### Working Temperature Limitations (ASTM C 411)

Operating temperature -4°C to 250°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 D 2020, UL 181)

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

### 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.

### Alkalinity

pH 9

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

Base glass fiber is non-combustible when tested to ASTM E 84.

Facing	Flame Spread	Smoke Developed	Fuel Contributed
FRK	25	10	0

### Specification Compliance

**AFICO Blanket Insulation** complies with the property requirements of the following specifications:

DCL : ASTM C 665  
CE-EN : 1121-CPD-BA0136

### Vapor Permeability (ASTM E 96 A)

FRK : 0.020 PERM  
Kraft : 1.00 PERM

### 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 'O' fire rating to the building regulations sections E15

### Compressive Strength

PSF at 10% Deformation : 5  
PSF at 25% Deformation : 10

### Puncture Resistance (ASTM D 781)

Aluminum Foil Reinforced : 25 Units  
Kraft Paper Laminate (FRK)

### Acoustical Performance (ASTM C 423)

Sound Absorption Coefficients at Frequencies (Hz)

**Table 1-1**  
Sound Absorption Coefficients

### AFICO Fiberglass Blanket Insulation

Product Type & Thickness	Mounting (1)	Sound Absorption Coefficients Octave Band Center Frequencies, Hz						
		125	250	500	1000	2000	4000	NRC
3.5" (R-11), insulation exposed to sound	A	0.34	0.85	1.09	0.97	0.97	1.12	0.95
6.0" (R-19), insulation exposed to sound	A	0.64	1.14	1.09	0.99	1.00	1.21	1.05
3.5" (R-11), insulation exposed to sound	E-405	0.80	0.98	1.01	1.04	0.98	1.15	1.00
6.0" (R-19), insulation exposed to sound	E-405	0.86	1.03	1.13	1.02	1.04	1.13	1.05
3.5" (R-19) FRK facing exposed to sound	A	0.56	1.11	1.16	0.61	0.40	0.21	0.80
6.0" (R-19), FRK facing exposed to sound	A	0.94	1.33	1.02	0.71	0.56	0.39	0.90

## Performance & Physical Characteristics

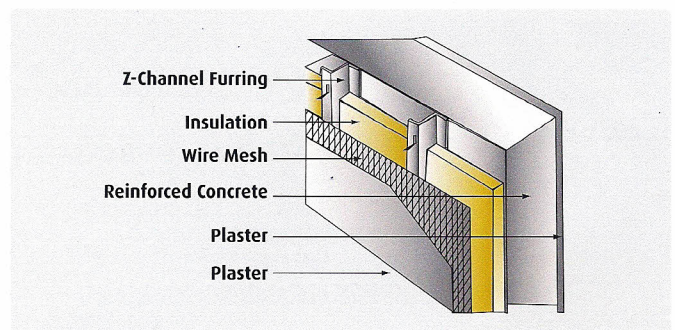
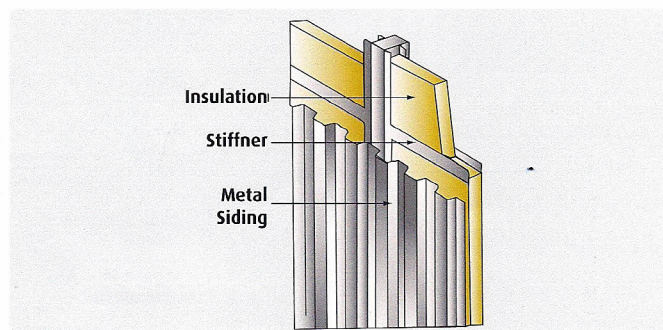
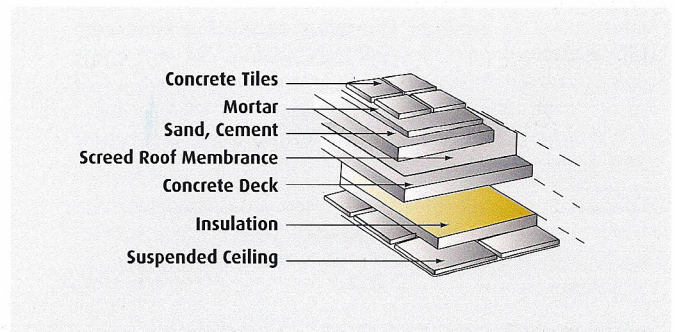
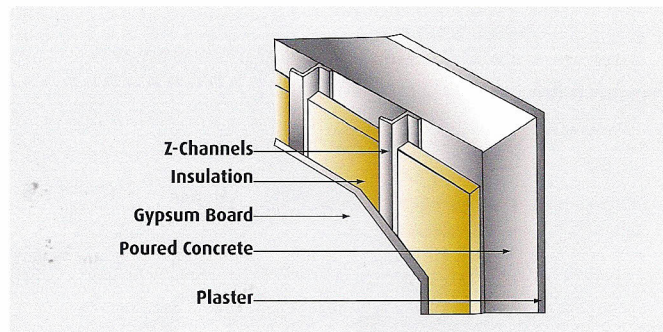
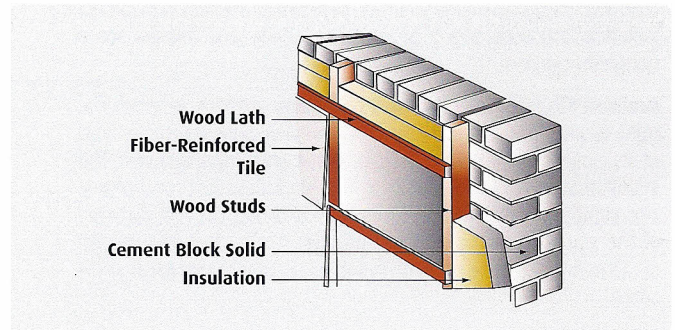
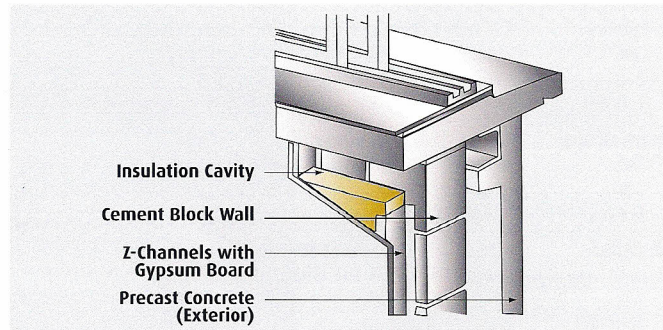
**Table 1-2**  
 Sound Absorption Coefficients, Fiberglass noise barrier batts.

Product Type & Thickness	Mounting (1)	Sound Absorption Coefficients Octave Band Center Frequencies, Hz						
		125	250	500	1000	2000	4000	NRC
2.5" (R-8)	A	0.21	0.62	0.93	0.92	0.91	1.03	0.85
3.5" (R-11)	A	0.38	0.88	1.13	1.03	0.97	1.12	1.00
2.5" (R-8)	E-405	0.59	0.84	0.79	0.94	0.96	1.12	0.90
3.5" (R-11)	E-405	0.73	0.98	0.98	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 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 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. **AFICO Blanket Insulation** 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 headquarters 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.

## AFICO PRODUCTS

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

## PRODUCTS CODE

ACP  
**BKT**  
HDB  
BD  
RI/RD  
CWI  
MBI  
FDW  
DL  
DLB  
MBD  
PI  
PWI  
TIW  
QL  
QLB

For more information call the insulation professionals:



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Our GREEN promise:  
the healthy solution

- ENERGY SAVING
- ENVIRONMENTALLY FRIENDLY
- RECYCLED MATERIALS
- SOLUTION FOR GLOBAL WARMING

AFICO is committed to a greener, cleaner environment. AFICO have responded to this call for conservation by increasing the amounts of recycled materials in our products.

Authorized Distributor