



Acoustical Ceiling Panels (ACP)



Product Description

AFICO Acoustical Ceiling Panels are composed of fine, stable and uniformly textured inorganic glass fibers bonded together by a non-water soluble and fire retardant thermosetting and fire resistant resin. They are free from coarse fibers and shot due to their mineral composition.

Facing

AFICO Acoustical Ceiling Panels are faced with abuse-resistant washable PVC film facing. Standard available facing, Random Fissured, Shasta, Vinta.

Back-Facing

AFICO Acoustical Ceiling Panels are also available with an additional Non-Woven Fiberglass Tissue back facing.

Application

AFICO Acoustical Ceiling Panels are intended for use in commercial, institutional, and residential construction as an acoustical and thermal ceiling panel for suspended ceiling systems. This decorative ceiling panel will specifically meet the designer's need for acoustic control and has a good aesthetic appearance and high thermal performance, especially in open plan offices, board rooms, schools, stores, showrooms and shopping centers.

Standard Available Products

Nominal Manufacturing Specifications.

Product Type	Density		K Value@24°C		R Value / Thickness					NRC Value			
	Kg/m ³	Lb/ft ³	W/m ² ·°K	BTU·in/hr·ft ² ·°F	19 mm	¾ in.	25 mm	1 in.	30 mm	1 ¼ in.	19 mm	25 mm	30 mm
720	72	4.5	0.032	0.22	0.59	3.30	0.78	4.30	0.94	5.13	0.85	0.95	1.00
800	80	5.0	0.032	0.22	0.59	3.30	0.78	4.30	0.94	5.13	0.85	0.95	1.00
960	96	6.0	0.032	0.22	0.59	3.30	0.78	4.30	0.94	5.13	0.90	0.95	1.05
1200	120	7.5	0.032	0.22	0.59	3.30	0.78	4.30	0.94	5.13	1.00	1.10	1.10

Other thickness available upon request and verification

Standard Nominal Panel Sizes

Metric (mm)	Imperial Equivalent
610 x 1220	24" x 48" (in.) 2' x 4' (ft)
600 x 1200	
610 x 610	24" x 24" (in.) 2' x 2' (ft)
600 x 600	



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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

Nominal K-Value

Product Type	Density		Mean Temperature					
	Kg/m³	Lb/ft³	10 °C	50 °F	24 °C	75 °F	35 °C	95 °F
ACP								
720	72	4.5	0.031	0.21	0.032	0.22	0.034	0.24
800	80	5.0	0.031	0.21	0.032	0.22	0.034	0.24
960	96	6.0	0.031	0.21	0.032	0.22	0.034	0.24
1200	120	7.5	0.031	0.21	0.032	0.22	0.034	0.24

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)

$$R = \frac{T}{K} \quad \text{Where "T" = Thickness}$$

$$R = \frac{T}{\lambda} \quad \text{Where "K" or "λ" = Thermal Conductivity}$$

Sound Absorption Coefficients

1/3 Octave Band Center Frequencies, Hz

Thickness		125	250	500	1000	2000	4000	NRC
mm	in.							
15	5/8	0.66	0.76	0.60	0.80	0.89	0.80	0.75
20	7/8	0.68	0.81	0.68	0.78	0.85	0.80	0.80
25	1	0.77	0.82	0.70	0.86	0.90	0.75	0.85
38	1½	0.64	0.88	1.02	0.91	0.84	0.62	0.90
50	2	0.78	0.92	0.79	1.00	1.03	1.10	0.95

Sound Transmission Lossin dB

Octave Band Center Frequencies, Hz

Thickness		125	250	500	1000	2000	4000	STC
mm	in.							
15	5/8	30	42	51	59	62	51	50
20	7/8	33	44	52	60	63	53	52
25	1	35	45	53	59	63	55	54
38	1½	38	47	55	58	63	57	56
50	2	44	55	63	67	71	71	64

Surface Burning Characteristics (UL723, ASTM E84)

Base glass fiber is non-combustible when tested.

Flame Spread Index	Smoke Developed Index
≤ 25	≤ 50

Working Temperature Limitations (ASTM C411)

Operating temperature -4°C to +232°C At excessive temperatures, a limited migration of binder may occur in the insulation in contact with the hot 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% by weight

Odor Emission (ASTM C1304)

Passes, 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

Light Reflection (ASTM D523)

WHITE: LR1 = 30 -60

Sound Transmission Coefficient (ASTM E90)

STC: 50 or greater

Noise Reduction Coefficient (ASTM E423)

NRC: minimum 0.60

Specification Compliance

AFICO Acoustical Ceiling Panels complies with the property requirements of the following specifications:

DCL: ASTM C612

CE-EN: EN 13162-T4-WS.WL(P)1121-CPD-BA0136

UL 723: Classified as FHC 25/50 File no R37968

SCS: Recycled Content Certified
SCS-MC-02811

ASTM C795: Thermal Insulation for Use in Contact with Austenitic Stainless Steel tested

SASO: SASO GSO EN 13162
License #201800652111

No Sagging or Warping

AFICO Acoustical Ceiling Panels will not sag or warp in high humidity conditions that prevail in the Middle East. By using Afico ceiling Panels your ceiling systems will look better over time and replacement of panels due to sagging and warping can be eliminated.

Easy to Install for a Professional Looking Job

AFICO Acoustical Ceiling Panels are cut easily with a simple utility knife, allowing for a tight fit around borders, cut-outs, obstructions, and columns. No saws or sectioning are required.

Reduced Noise Levels for a Better Environment

AFICO Acoustical Ceiling Panels have excellent sound absorption characteristics. This is especially important for areas such as open offices, schools, stores and shopping centres, with a highly sound absorbent ceiling material.

A Better Ceiling for the Short and Long Term

The abuse-resistant surface of AFICO Acoustical Ceiling Panels will not chip or flake, even when dropped. This means reduced cost for contractors and owners, due to less damage during installation and normal maintenance.

AFICO Acoustical Ceiling Panels can be wiped clean with soap and water, so normal surface dust can be removed as needed.

Reduced Energy Costs through Proper Design

AFICO Acoustical Ceiling Panels have a built-in thermal resistance (R-Value) of R=0.06m²·°K/W, for the standard 72 kg/m³ density and 20mm thick type. AFICO Acoustical Ceiling Panels can also be back loaded with Blanket Insulation to provide an additional R-value of up to 6.70m²·°K/W (See Maximum Back loading).

AFICO Acoustical Ceiling Panels allow ultimate flexibility when designing for energy efficiency for a new building or retrofit project.

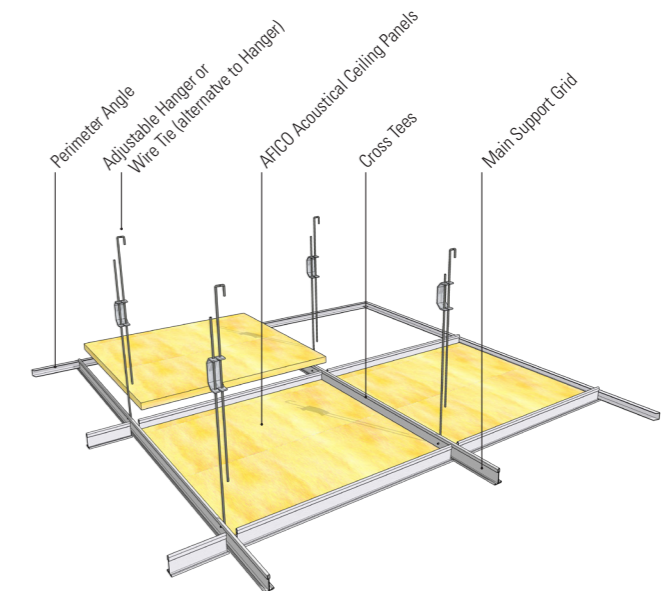
Installation Recommendation

AFICO Acoustical Ceiling Panels are produced only with square edges and are designed for lay-in installation in a mechanical suspended, exposed, standard "T" grid system. The ceiling panel must be supported on all edges. Hold-down clips are sometimes required.

AFICO Acoustical Ceiling Panels are cut easily with a utility knife, allowing for a tight fit around pipes, lighting fixtures and borders.

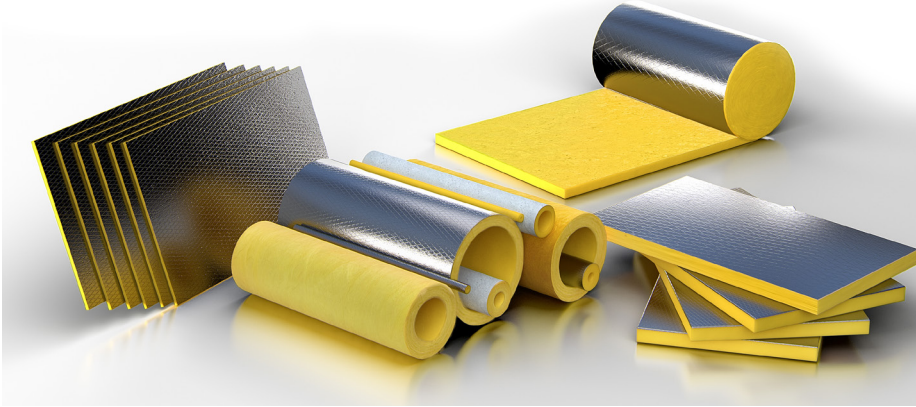
AFICO Acoustical Ceiling Panels may be back loaded with AFICO Blanket Insulation to provide additional thermal resistance (R-value).

Panel Size (mm)	Maximum Back Loading
610 x 610	300mm
600 x 600	300mm
610 x 1220	150mm
600 x 1200	150mm





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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

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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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Zamilindustrial

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Authorized Distributor:

Maintenance

No maintenance is required. **AFICO Acoustical Ceiling Panels** 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 presents no hazard 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. II, 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.