

Quietliner Cavity Wall Insulation

Technical Data Sheet
Product Code: **CWI**



DESCRIPTION

Quietliner Cavity Wall Insulation is composed of fine, stable and uniformly textured inorganic glass fibers bonded together by non-water soluble and fire-retardant thermosetting and heat resistant resin, and formed into semi-rigid non-combustible and moisture repellent rectangular boards or slabs. It is free from coarse fibers and shot due to its mineral composition.

FACING

Quietliner Cavity Wall Insulation is available either unfaced with a silicon-based emulsion additive in the wool to make the product water-repellent, or with a factory-applied Aluminum Foil Facing.

APPLICATION

Quietliner Cavity Wall Insulation is a semi-rigid board intended for use in commercial, institutional, industrial, agricultural and residential construction as thermal and acoustical insulation for interior, exterior and partial or fully cavity wall applications as well as in poultry farms, precast structures, prefabricated houses and new residential construction.

STANDARD NOMINAL DENSITY

22 kg/m³, 24kg/m³,
32kg/m³

STANDARD AVAILABLE PRODUCTS

Nominal Manufacturing Specifications.
Check for availability in other dimensions.

NOMINAL THERMAL CONDUCTIVITY

(BS 874) (ASTM C 518)
"K" or "λ" value at mean temperatures

Thermal Resistance (m ² .°C/W) (hr.ft ² .°F/Btu)	Thickness mm	Width mm	Length Package		
			mm	inch	m ² / ft ²
1.40 8.00	50	1200/600			
2.0 12.00	75	1200/600			
*Other sizes available					

Mean Temperatures		W/m. °C	Btu.in/ft ² .hr.°F
10°C 50°F		0.034	0.24
24°C 75°F		0.035	0.24
50°C 122°F		0.042	0.29
75°C 167°F		0.047	0.33
100°C 212°F		0.052	0.36



* Standard Products and Sizes

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Performance & Physical Characteristics

Working Temperature Limitations

-4°C to +350°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

pH 9

Corrosiveness (ASTM C 665)

Chemically inert. Will not cause or accelerate corrosion of steel, stainless steel copper or aluminium, 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 C553. **Thermacon** 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.

Compressive Strength

12 PCF at 10% Deformation
40 PCF at 25% Deformation

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

Base glass fiber is non combustible when tested to ASTM E 84.
UNFACED: Flame Spread: 5 Smoke Developed: 0
Fuel Contributed : 0

Fire Properties

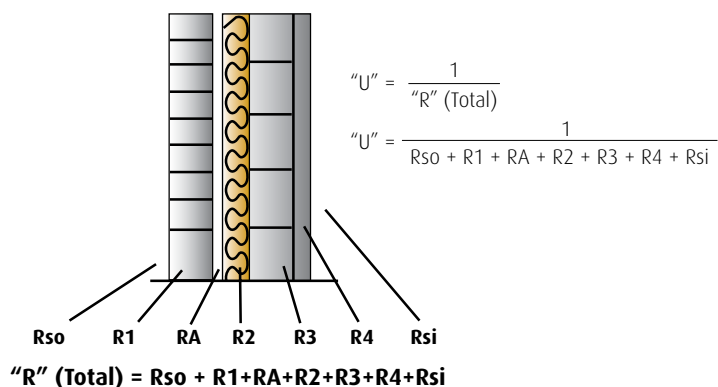
AS1530 Part 1 Non Combustible
AS1530 Part 3

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.

The U value is the reciprocal of the sum of the resistances of the component parts of the structure plus the resistance of the surfaces and any cavities within the structure.

"U" Value of typical Cavity Wall Construction





Performance & Physical Characteristics

Key

Thermal Resistance = T/K
 R_{so} = T/K of outside surface air film
 R_1 = T/K of external wall
 R_A = T/K of air space
 R_2 = T/K of insulation
 R_3 = T/K of internal wall
 R_4 = T/K of internal finish
 R_{si} = T/K of inside surface air film

Sound Absorption Coefficient

ASTM C 423 - Mounting Type A
 Product placed against a solid backing such as a block wall

Thickness	Sound Absorption Coefficients							
	Octave Band Center Frequencies, Hz							
(mm) (in)	125	250	500	1000	2000	4000	NRC	
25 1	0.09	0.26	0.64	0.90	1.05	1.10	0.70	
50 2	0.26	0.77	1.13	1.09	1.04	1.05	1.00	
75 3	0.28	0.80	1.12	1.18	1.12	1.10	1.05	

Installation

Thermacon CWI Insulation products can be easily cut with a knife and neatly fitted into irregularly shaped areas.

For Vertical Applications:

Thermacon CWI Insulation can be installed between furring strips or Z channels. For enclosed applications the product can be impaled on impaling pins and/or adhered with adhesives.

For Horizontal Applications:

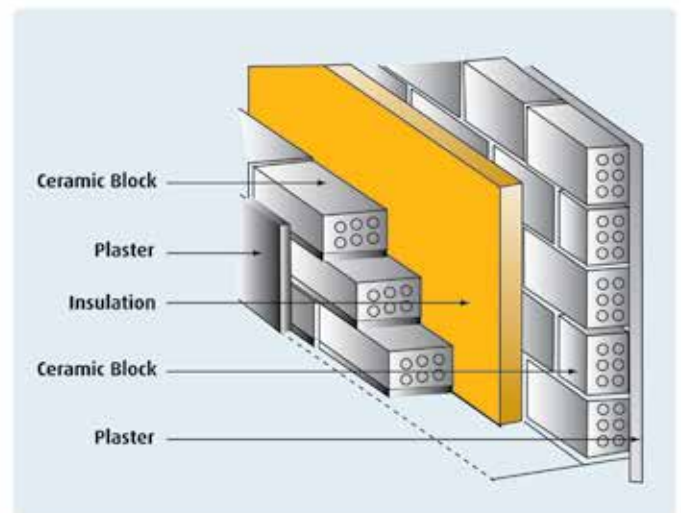
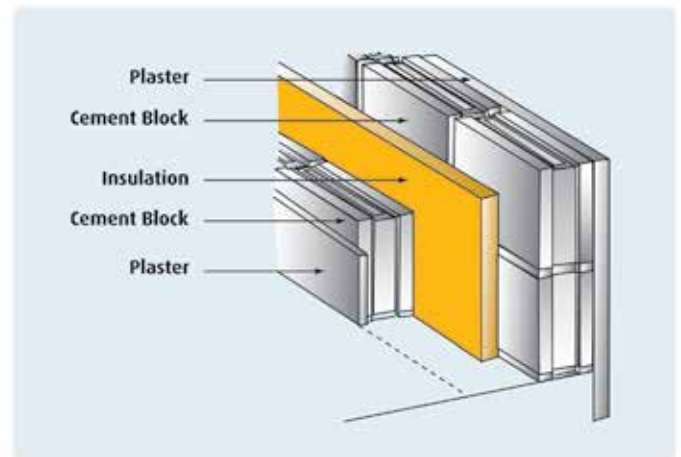
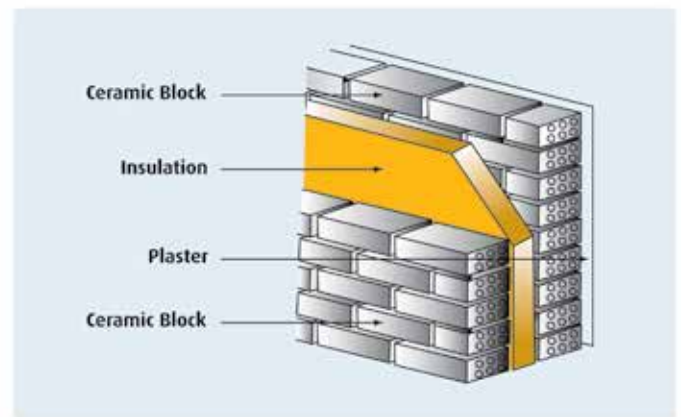
Thermacon CWI Insulation can be installed by the use of impaling pins against horizontal surfaces.

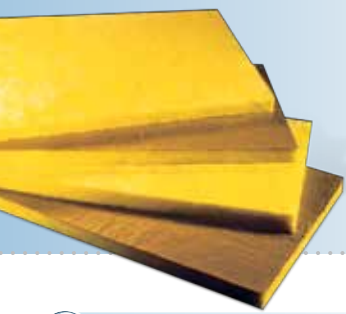
On Masonry Surface:

Thermacon CWI Insulation can be installed between wythes and on wall faces with impaling pins, mechanical fasteners and/or adhesives.

On Precast Concrete:

Thermacon CWI Insulation can be installed using impaling pins and/or appropriate adhesives.





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MAINTENANCE

No maintenance is required. **Thermacon Cavity Wall 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, 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** fibreglass 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.

WARRANTY

See manufacturer's General Terms and Conditions of Sale. As **Thermacon** and/or OC has no control over installation design, installation workmanship, accessory materials, or conditions of application, **Thermacon** and/or OC 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 Fibreglass Insulation Company **Thermacon** 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 **Thermacon** materials and methods of fixing are the decision of the specifier, consultant or contractor. For further information or advice on specification of **Thermacon** products, contact your local sales office.

Thermacon PRODUCTS

PRODUCTS CODE

Acoustical Ceiling Panels	ACP
Blanket Insulation	BKT
HD Series Blanket Insulation	HDB
Board Insulation	BD
Roof Insulation	RI
Roof Deck Board Insulation	RD
Cavity Wall Insulation	CWI
Pre-engineered Metal Building Insulation	MBI
Faced Duct Wrap	FDW
Duct Liner	DL
Duct Liner Board	DLB
Mechanical Board Insulation	MBD
Heavy Density Pipe Insulation	PI
Pipe Wrap Insulation	PWI
Thermal Insulating Wool	TIW
Quiet Liner	AQL
Woven Facing	AWF
Prefabricated Duct Board	PDB



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