



افيكو AFICO

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

Thermacon Heavy Density Pipe Insulation

Technical Data Sheet
 Product Code: PI



DESCRIPTION

Thermacon Pipe Insulation is a heavy density, preformed 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 fibers and shot due to its mineral composition, molded in one-piece sections and made with a single seam. **Thermacon Heavy Density Pipe Insulation** are damage resistant, easy to handle and spread open to receive the pipe and snaps closed after placement.

FACING

Thermacon Heavy Density Pipe Insulation is supplied plain or with a factory-applied jacket for applications requiring an integral vapor barrier. Standard jacketing materials include Aluminum Foil Glass Reinforced Kraft Paper Laminate (FRK), the White All Service Jacket (ASJ) and the Aluminum Foil Woven Fiber Glass Jacket (AWF). All jackets are provided with a nominal 50mm lap to facilitate closure and vapor sealing of the longitudinal joint. Outdoor or direct bury applications require additional protection from the elements.

APPLICATION

Thermacon Heavy Density Pipe Insulation is intended for use in commercial, institutional, industrial and residential construction and in power and process plants as thermal and acoustic insulation for hot or cold, concealed or exposed steel, copper and plastic piping where temperatures are between -18°C and +450°C (0 to 850 °F).

STANDARD AVAILABLE SIZES

Thermacon Heavy Density Pipe Insulation is made in standard 1m and 1.2m lengths and is available in nominal iron pipe sizes from 12.7 mm (½ in) through 650 mm (26 in) and in nominal copper tube sizes from 15 mm (½ in) through 156 mm (6 ¼ in).

Nominal wall thickness ranges from 13 mm (½ in) to 100 mm (4 in), with 13 mm (½ in), 25 mm (1 in), 38 mm (1 ½ in), 50 mm (2 in), 64 mm (2 ½ in), 75 mm (3 in) and 100 mm (4 in) as standard.

NOMINAL DENSITY

64 kg/m³ to 128 kg/m³ or 4 lbs/ft³ to 8 lbs/ft³

NOMINAL THERMAL CONDUCTIVITY (BS 874)

"K" or "λ" value at mean temperatures

Product Type PI	Density		W/m.°C – Btu.in/ft².hr. °F (ASTM C 518)															
	Kg/m³	Lb/ft³	0°C	32°F	10°C	10°F	24°C	75°F	50°C	122°F	75°C	167°F	100°C	212°F	150°C	302°F	260°C	500°F
640*	64	4	0.029	0.21	0.029	0.20	0.030	0.21	0.032	0.22	0.036	0.27	0.040	0.27	0.050	0.34	0.079	0.55
800	80	5	0.030	0.21	0.030	0.21	0.032	0.22	0.033	0.23	0.037	0.26	0.039	0.27	0.047	0.33	0.065	0.45
960	96	6	0.030	0.21	0.031	0.21	0.032	0.22	0.035	0.24	0.036	0.25	0.038	0.26	0.044	0.31	0.057	0.40

* Standard Products and Sizes





Performance & Physical Characteristics

Economic Thickness

Guide Specifications

Piping System Types	Fluid Temperature Range °C	Pipe Sizes (mm)					
		Runouts Up to 50	25 & Under	32-50	64-100	125-150	200 and Over
Minimum Insulation (mm) for Pipes sizes							
Heating Systems							
Steam and Hot Water High Pressure/ Temperature	152 - 238	40	64	64	75	89	89
Medium Pressure/ Temperature	122 - 151	40	50	64	64	75	75
Low Pressure/ Temperature	94 - 121	25	40	40	50	50	50
Low Temperature	49 - 93	13	25	25	40	40	40
Steam Condensate for feed water	Any	25	25	40	50	50	50
Cooling systems							
Chilled water	4.5 - 13	13	13	25	25	25	25
Refrigerant, or Brine	Below 4.5	25	25	40	40	40	40

The Economic Thickness chart is taken directly from ASHRAE Standard 90A-80 and reflects minimum Pipe Insulation thickness recommended for commercial or residential applications.

Installation Recommendation

Thermacon Heavy Density Pipe Insulation products are easily installed. The one piece sections are snapped in place on the pipe to be insulated. Longitudinal and butt joints are vapor sealed by application of ASJ or FRK pressure-sensitive tape, or the use of mastics (both supplied separately).

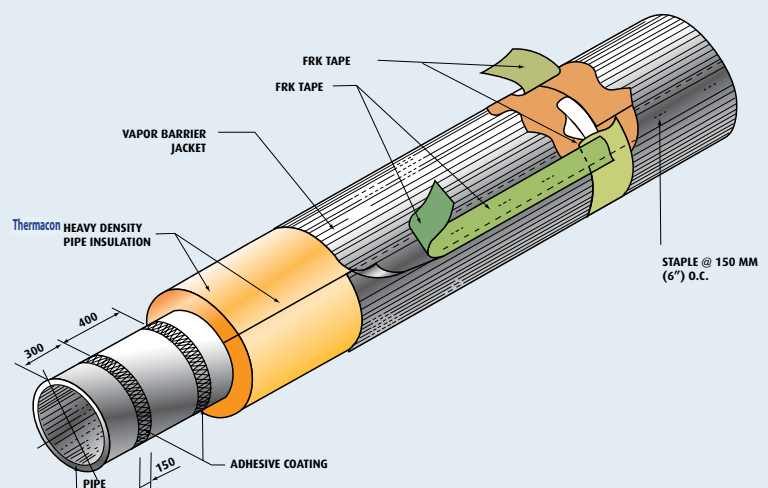
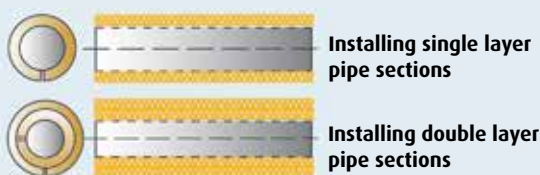
Note: Outdoor applications require additional weather protection.

Thermacon Fiberglass pipe For Exposed Pipe section faced with Aluminum Woven Glass (AWF) Facing will provide:

- A substitute for conventional thermal insulation products that requires a costly & labour intensive work at site e.g. protection of pipe insulation by additional weather proofing.
- An ideal substitute for conventional thermal insulation practices.
- AWF facing provides factory applied thermal sealing system.

- **Thermacon** Rigid Pipe Coverings is faced with factory applied AWF facing.
- AWF is aluminum foil laminated with glass fabric.
- It has extremely high Bursting strength of 270 psi i.e. 3-4 times higher than that of conventional facings.
- It has extremely high Tensile strength of 14.5 KN/m i.e. 3-4 times higher than that of conventional facings.
- AWF is having high mechanical strength, durability and dimensional stability.
- AWF will achieve water vapor permeance of 0.018 perm better than the conventional facings.
- AWF can withstand temperature up to 500 deg C while other conventional facing are suitable to 100 deg C.
- **Thermacon** Rigid Pipe Coverings faced with AWF can be used with no additional requirement of handling and weather protection such as application of canvas + vapor barrier.
- **Thermacon** Rigid Pipe Coverings faced with AWF are not proof, resist the effects of moisture and will not decompose through continual exposure to the elements.
- **Thermacon** Rigid Pipe Covering faced with AWF will maintain their thermal properties through the life time of the construction.
- Insulation contractors will be benefited as they can save on installation cost because of protection of pipe insulation by applying canvas + vapor barrier will not be needed.

If two layers of pipe sections are to be installed on one another, the longitudinal cut should not be on the same line. For single layer applications, the longitudinal cut should be placed to the under side of the pipe section.





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MAINTENANCE

No maintenance is required. **Thermacon Heavy Density Pipe 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.

AVAILABILITY

Manufactured by **Arabian Fibreglass Insulation Company, Ltd.** (AFICO), member of **Zamil Industrial**, with headquarters and production facilities located in Dammam, Saudi Arabia, under license from and utilizing the manufacturing specifications and technology of **Owens-Corning Corporation** (OC), Toledo, Ohio, U.S.A.

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

Special products are manufactured on request.

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

For more information call the insulation professionals:



H.O. & Factory: P.O. Box 1289, Dammam 31431, Saudi Arabia
Tel: +966 3 847 2901 / 847 1519
Fax: +966 3 847 3605
E-mail: wajdei@afico.com.sa

Riyadh Office: P.O. Box 50281, Riyadh 11523, Saudi Arabia
Tel: +966 1 472 5555 ext. 283
Fax: +966 1 291 0162
E-mail: kathunaiyan@afico.com.sa

Jeddah office: P.O. Box 2140, Jeddah 21451, Saudi Arabia
Tel: +966 2 670 0020 ext. 133
Fax: +966 2 287 2283
E-mail:

Gulf Regional Office: P.O. Box 44493, Deira, Dubai, U.A.E.
Tel: +971 4 294 1211
Fax: +971 4 294 1168
E-mail: aficogcc@emirates.net.ae

Export Office: P.O. Box 90-284, Jdeidet El Metn Beirut - Lebanon
Tel: +961 1 900962
Fax: +961 1 900963
E-mail: AFICO@cyberia.net.lb



info@afico.com.sa



www.afico.com.sa

Our GREEN promise:
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- 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.

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16 Hodgson Way
Kewdale WA 6105
T: (08) 9353 6033

thermacon@thermacon.com.au
www.thermacon.com.au