



Insultherm[®]
Middle East L.L.C.



Dubai Civil Defense (DCD) Certified

Insultherm[®]

PHENOLIC FOAM INSULATIONS

Low Thermal Conductivity, High Thermal Performance

Fully Fire Retardant, Energy Saving, Long Durability

CFC & HCFC Free, Zero ODC and Low GWP

WE HAVE LONG-TERM EXPERIENCE



WHO WE ARE?

The INSULTHERM® family has grown and developed since 1997. From our experience in the industry more than 23 years, Insultherm® is suited to create, supply and install insulation for your system, with a full on 'can do' attitude. We know what we are doing and explore every second to beat out rivals in the field.

INSULTHERM® offer a wide range of services such as Chilled Water Pipe Insulation, Duct Insulation, Cold Insulation, Pre-insulated Air Duct Panel, Pre-insulated Pipe and Fittings for Underground Chilled Water Piping / District Cooling Application, Cryogenic Insulation, Tank/Vessel/Equipment Insulation, Wall, Roof, Soffit, EIFS Insulation and Hot Insulation. We are different because of our people who above all have a passion and enthusiasm for the systems we offer. In short our team is just great team that from beginning to end gives you a smashing blend of efficient, skilled speedy service.

With best and advanced automation (CNC's) machineries are available in our production field. Our product will comply with all international standards and definitely will meet your requirements in all aspects.

WHAT WE DO?

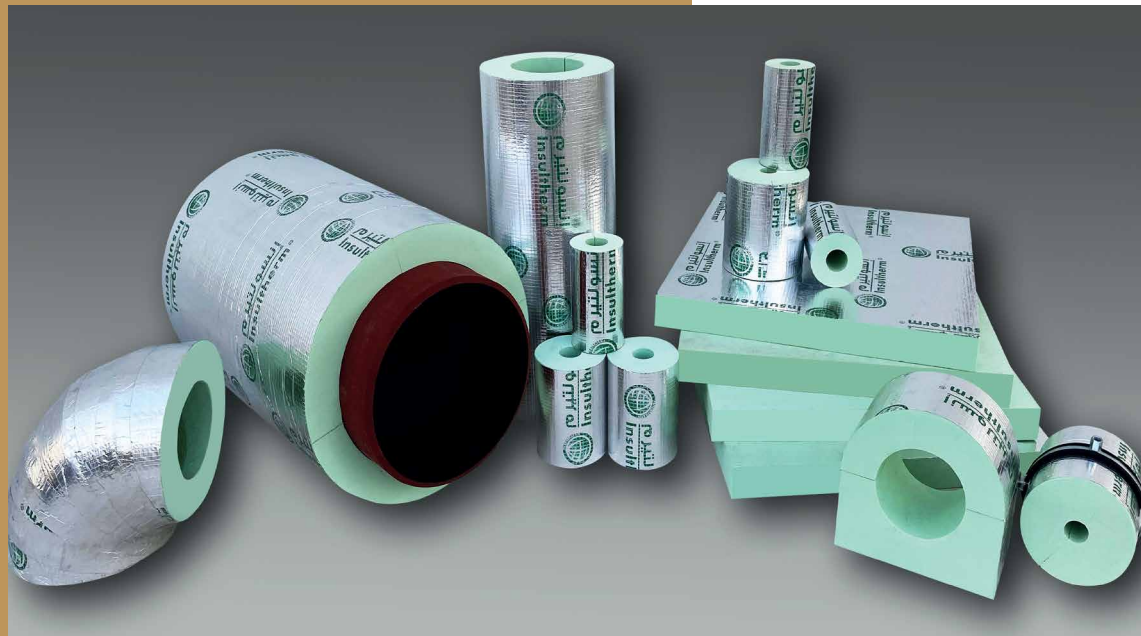
Feel the magical touch that has managed to get up new trend of iconic styles in the world of industrial and commercial insulation markets. Our power packed experienced team design each and every product with keen attention inside the INSULTHERM® workshop to fulfill the needs of variety of customers from various industries. We are here with a promise to present the innovative series of insulation products and accessories of the area indulged with an elegant touch tailored for an extravagant life.

WE OFFER A FULL LINE OF
THERMAL INSULATION SYSTEMS & ACCESSORIES
For Many Diverse Applications



INSULATE YOUR PLACE, IT MAKES PERFECT SENSE...

- Chilled Water Pipe and Duct Insulation
- Cold Insulation and Equipment/Energy Tank Insulation
- Condensate, Drain Water, Water Supply Insulation
- High Density Thermal Support Inserts for Pipe and Duct
- Roof, Wall, Soffit and Ceiling Insulation
- Cavity Wall, Slab / Board Insulation
- Insulation for EIFS and ETICS System
- Building Insulation
- We Offer A Full Line Of Thermal Insulation Systems and Accessories for Many Diverse Applications



Insultherm®

PHENOLIC FOAM (PF) INSULATION

PRODUCT DESCRIPTION

Insultherm® Phenolic Foam is a rigid CFC and HCFC Free cellular foam insulation material with a substantially closed cell structure, whose polymer structure is made primarily from the poly-condensation of phenol, its homologues and/or derivatives with aldehydes and ketones.

Insultherm® Phenolic Foam has various distinct properties that make it better than any other conventional insulation materials.

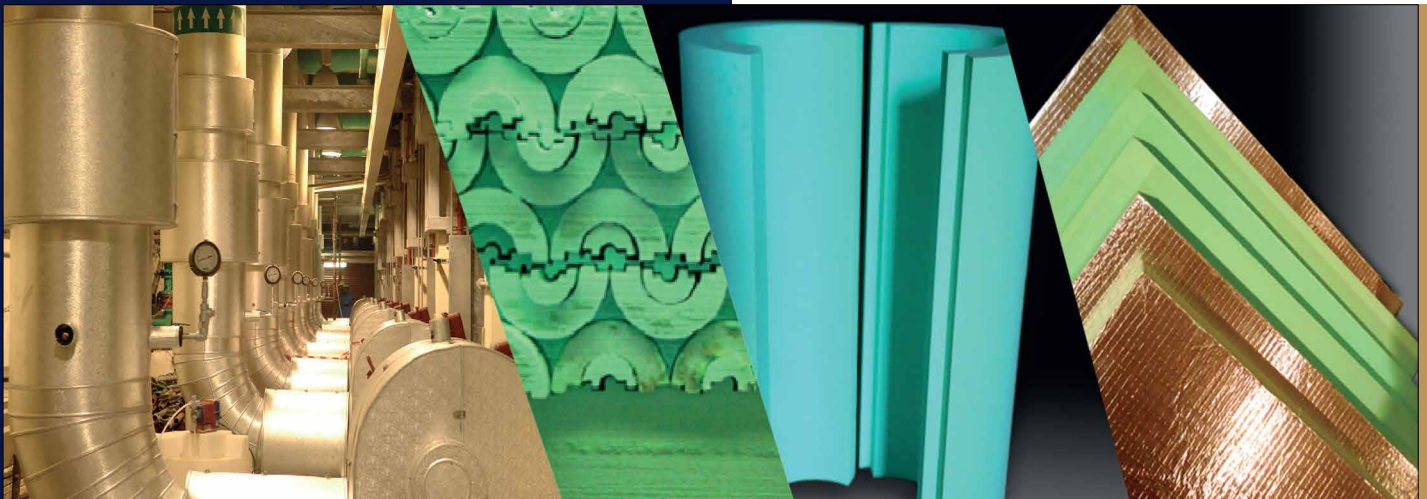
Low K-Value (K-Value = 0.018 W/m.K) - that means exceptionally low thermal conductivity.

Main Application Insultherm® Phenolic Foam are using for the application of Chilled Water Pipe and Duct Insulations, Roof, Wall, Cavity Wall, Soffit Insulation, EIFS and ETICS System.

Wide Service Range for diverse insulation applications.

Cost-effective because lower thermal conductivity facilitates usage of lesser thickness of Insultherm® Phenolic Foam for the same level of insulation.

A Wide Service Temperature Range between -180 °C to +125 °C makes Insultherm® Phenolic Foam ideal for low temperature and cryogenic applications. It can be effectively used on LSHS, fuel oil and low pressure steam and hot water lines.



Low Water Absorption is a key feature of Insultherm® Phenolic Foam a high closed cell content of up to 95% results in very low water vapour transmission and reduces condensation.

Insultherm® Phenolic Foam assures **Longer Life** as it is un-affected by most aromatic and aliphatic solvents.

Odourless and does not absorb colour.

Rodent/Insect Proof and being mildly antiseptic resists fungal and bacterial growth.

Corrosion and Chemical Resistance is another strength. Insultherm® Phenolic Foam resists organic solvents and chemicals. Being non-abrasive and hydrophobic, it does not corrode metal.

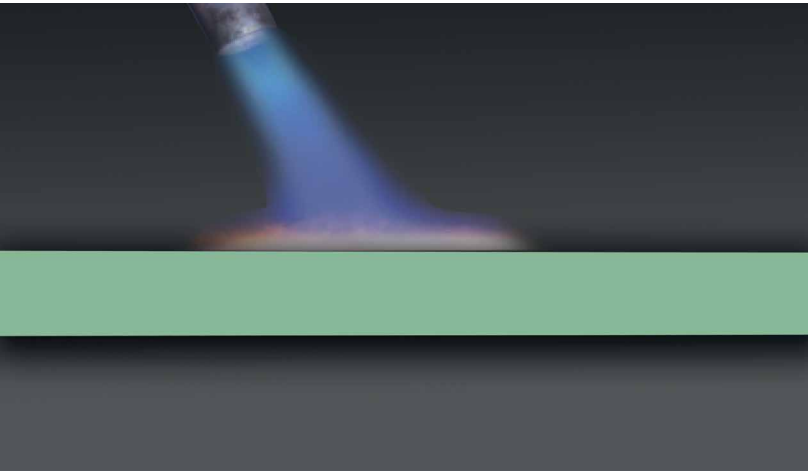
Insultherm® Phenolic Foam has **Anti-static Properties** it is an electrical insulator and in case of friction does not generate static electricity or sparks.

Fire Performance the re performance of Insultherm® Phenolic Foam is exceptional. It combines zero or very low flame spread with negligible smoke emission and a very low level of toxic gas emission.

Densities

35Kg/m³ to 80Kg/m³ for Thermal Insulation, Pipe Sections, Duct Insulation and Slabs/Board for Building Insulation.

80Kg/m³ to 160Kg/m³ for the use of Thermal Pipe and Duct Supports Inserts.



Insultherm® Phenolic Foam is **workable, easy to install** and can be cut and shaped to any size with hand tools.

Availability Pipe Sections, faced with reinforced (Class 'O') Aluminium foil, reinforced (Class 'I') Aluminium Foil, Aluglass Foil (Aluminized Glass Cloth) OR un-faced.

Pipe Fittings including Elbows, Tees, Valve, Covers.. etc...

Pipe and Duct Support Inserts faced with reinforced (Class 'O') Aluminium foil, reinforced (Class 'I') Aluminium Foil, Aluglass Foil (Aluminized Glass Cloth) OR un-faced.

Duct Board faced with one side reinforced (Class 'O') Aluminium foil, reinforced (Class 'I') Aluminium Foil, Aluglass Foil (Aluminized Glass Cloth) OR un-faced.

Roof and Wall Insulation, Insulation for EIFS /ETICS System, Cavity Wall Insulation and Building Insulation.

Soffit Insulation Slab/Board with Aluminium Foil, Fiberglass Tissue or Calcium Silicate Board Finished.

Compliance with factory fabrication standards: ASTM C 450-08 and ASTM C 585-10



Environmental Friendly Insultherm® Phenolic Foam Insulation has zero (0) Ozone Depletion Potential (ODP) Value and Global-Warming Potential (GWP) Value of less than five (<5)

Insultherm® Phenolic Foam has very low embodied energy per unit thermal performance compared to other insulation materials.

Significant CO₂ savings can be achieved compared to other insulation materials.

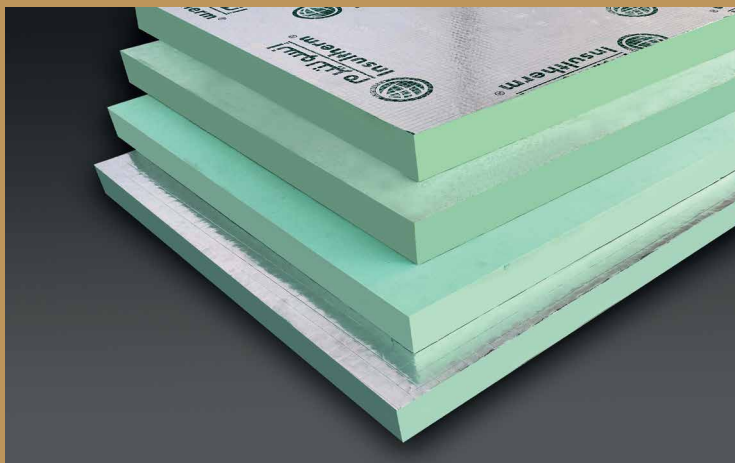
Insultherm® Phenolic Foam is completely Fire Rated, CFC and HCFC free material.

Insultherm® Phenolic is compliance with green building regulations, fire and life safety requirements, most sustainable Insulation, safe, eco-friendly, LEED compliant and high R-Value.

Moisture Resistance Insultherm® Phenolic Foam has been used successfully in insulation systems where moisture resistance is a key issue

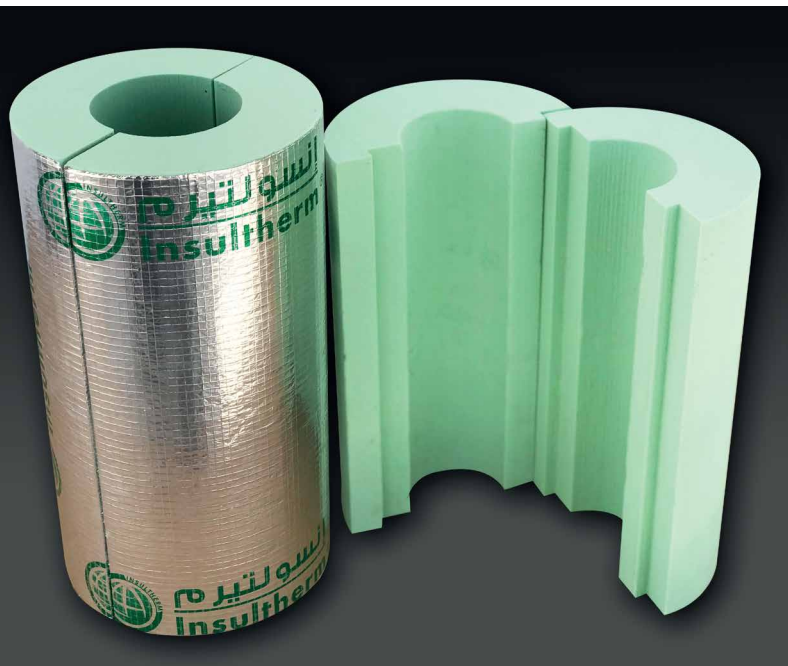
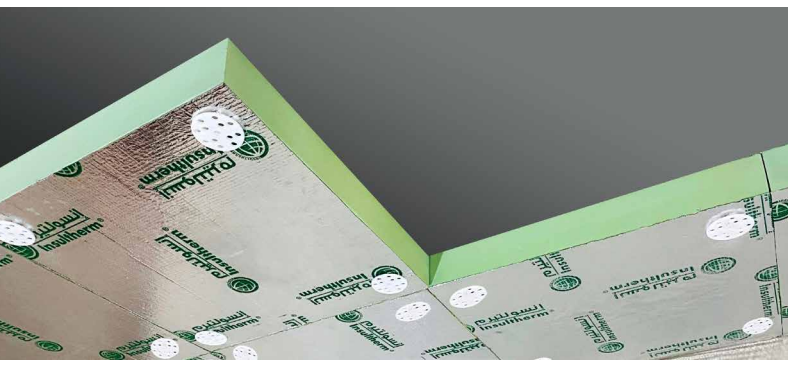
The reasons for this excellent performance are:

- Insultherm® Phenolic Foam has a low water vapour permeance and is therefore highly resistant to the passage of water vapour
- Insultherm® Phenolic Foam has low water absorption which takes place predominantly in the cut/broken surface cells of the foam
- Insultherm® Phenolic Foam is non-wicking. This means that if water enters the insulation system due to the vapour barrier becoming punctured, any moisture ingress is limited and conned to the punctured area. This ensures moisture does not build up and compromise the whole system.



DIVERSE APPLICATIONS

- Pipe and Duct Insulation
- Under-deck and over-deck (roof) insulation
- Suspended ceilings and partitioning for commercial complexes, Soffit Insulation with Calcium Silicate Faced.
- Wall, Cavity Wall Insulation, Insulation for EIFS and ETICS
- Residential Buildings and Hospitals
- Insulation of Vessels, pipelines in petrochemical, fertilizer, chemical and pharmaceutical plants and in refineries
- Insulation of cold storage and refrigerated rooms
- Life-saving equipment such as life jackets, buoyancy block and other marine equipment
- Insulation of refrigerated rail, surface and marine equipment and containers
- Insulation of high-altitude shelters
- Ship insulation.



Thermal Performance Insultherm® Phenolic Foam offer a wide range of thermal conductivity performance. The closed cell type offers the lowest thermal conductivity available from any other conventional insulation material resulting from:

- Closed cell structure
- Extremely small cell diameter
- Low thermal conductivity gas permanently encapsulated in cells

Insultherm® Phenolic Foam offers the following benefits:

- K-Values from 0.018 W/m.K depending on national certification requirements
- Excellent low thermal conductivity allows reduction in long term energy costs
- Insultherm® Phenolic Foam can be up to 50% more thermally efficient than other common insulation materials
- Higher thermal efficiency allows reduced insulation thicknesses to be used thereby saving valuable space
- Ease to install and excellent surface finishing
- Zero ODP and GWP <5
- Fully Fire Retardant

TECHNICAL SPECIFICATION

Insultherm® PHENOLIC FOAM (PF) is rigid CFC and HCFC Free cellular foam insulation material with a substantially closed cell structure and outstanding thermal properties, whose polymer structural is made primarily from the poly-condensation of phenol, its homologues and/or derivatives with aldehydes and ketone. Densities are available from 35 to 80 Kg/m³ for thermal insulation and Density above 80 Kg/m³ for thermal support inserts, also compliance with factory fabrication standards of ASTM C 450-08 and ASTM C 585-10.

PHYSICAL PROPERTIES	TEST METHOD	UNIT	TYPICAL VALUES					
			PF 35-40	PF 48-50	PF 65	PF TS 80	PF TS 100	PF TS 120
Nominal Density	ASTM D 1622	Kg/m ³	35-40	48-50	65	80	100	120
Thermal Conductivity (k-Value) -20°C Mean Temperature -10°C Mean Temperature 0°C Mean Temperature 10°C Mean Temperature 50°C Mean Temperature 80°C Mean Temperature	In accordance with ASTM C518/91, UNI 7891, BS 874, BS2972, MICA, ASTM C 680 (95and fully aged with BS 3927 Appendix A	W/m.K	0.018 0.018 0.018 0.018 0.023 0.025	0.018 0.018 0.018 0.018 0.023 0.025	0.021 0.021 0.021 0.021 0.024 0.028	0.022 0.022 0.022 0.022 0.026 0.030	0.024 0.024 0.024 0.025 0.030 0.034	0.026 0.026 0.026 0.027 0.033 0.036
Average Compressive Strength	ASTM D 1621	kPa	>210	>225	>375	>475	>750	>950
Toxicity Index	As per NES 713 testing Procedure	-	<7.0	<7.0	<6.0	<6.0	<5.0	<5.0
Oxygen Index	As per BS 2782 Part 1 Method 141	-	>45	>45	>45	>45	>45	>45
Smoke Obscuration	As per BS 5111 Part 1	%	<5	<5	<5	<5	<5	<5
CFC and HCFC	-	-	Free	Free	Free	Free	Free	Free
Steam water transmission Speed - Steam transmission - Steam permeability - u	ISO 1663 (Test condition: 23 °C, 85 % RH)	g/sq.24h nm/m.Pa.S.	43.65 3.35 58.7	43.65 3.35 58.7	40.20 3.15 55.8	37.30 2.95 51.95	35.35 2.91 50.80	35.30 2.90 50.15
Closed Cell Content	ASTM D 2856	%	95	95	>95	>95	>95	>95
Ozone Depletion Potential (ODP)	-	-	O (Zero)	O (Zero)	O (Zero)	O (Zero)	O (Zero)	O (Zero)
Global Warming Potential (GWP)	-	-	<5	<5	<5	<5	<5	<5
Water Absorption 96 hours @ 20°C Weight Volume	ASTM D 2842 & ISO 2896	%	0.113 0.045	0.105 0.042	0.095 0.038	0.088 0.035	0.082 0.033	0.080 0.032
Dimensions stability 48 hours @ 70°C 48 hours @ 70°C, 95% U.R. 48 hours @ -25°C	ASTM D 2126 (Dimensional variations in % after conditioning)	%	-1.24 +0.276 -0.05	-1.20 +0.272 -0.048	-1.12 +0.262 -0.044	-1.08 +0.255 -0.041	-1.06 +0.252 -0.040	-1.02 +0.248 -0.038
Service Temperature Limit	ASTM C 1126	°C	-180 to +125 (-292 °F to +257 °F)					
Fire Resistance	BS 476 Part 6 & 7	-	Class O Fire Rating					
Surface Spread of Flame	ASTM E 84	-	Class A (Class 1)					
Flame Spread Index	ASTM E 84	Index	<10					
Smoke Development Index	ASTM E 84	Index	<15					
Inorganic material: it is inherently proof against rotting mould, fungal growth and attack by vermin and is non-hygroscopic The material doesn't contain asbestos								
Fire: Test run with Insultherm® Phenolic foam material in full view for sheathing of wall directly exposed to fire; Degree of reaction to fire: 0 (Zero)								
Smoke: In conformity with the regulation NF F16-101 table 4 for smoke, it is classified as degree F1, with smoke index "I.F." 6.3. (emissions of smoke, noxious or toxic fumes are almost inexistent)								
Corrosion of steel: After 28 days of contact, no corrosion phenomenon is highlighted								
This leaflet cancels and supersedes all previous editions. We reserve the right to amend specification without prior notice. Whilst the information contained in the leaflet is true and accurate to the best of our knowledge and belief, all liability for errors and omission, damage or loss resulting here from is hereby excluded. Recommendations for uses should be verified as to stability and compliance with actual requirements, specification and any applicable laws and regulations.								

Certifications

CERTIFICATE OF PRODUCT CONFORMITY
 Dubai Central Laboratory Department (DCLD) of Dubai Municipality
 hereby attests that the product(s)
Insulation Materials
 (Details as per the attached Scope of Certification)
 manufactured by:
INSULTHERM MIDDLE EAST LLC
P.O. BOX 326853, New Industrial Area, Um Al Quwain, United Arab Emirates
 have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DF21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:
2018 UAE Fire and Life Safety Code of Practice
 Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-mentioned product(s).
 for: ENGR. AMIN AHMED AMIN
 Director, Dubai Central Laboratory Department
 Dubai Municipality
 Certificate No: CL20190754
 Valid Upto: 13/01/2021
 Control Issue Date: 14/01/2020
 Original Issue Date: 14/01/2020
 The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate.
 This Certificate is an electronic document subject to the Terms and Conditions of the Product Certification System and shall not be mentioned except in Full.

Certificate Of Registration
 Awarded to
INSULTHERM MIDDLE EAST LLC
 at
P.O. BOX NO: 326853, UMM AL QUWAIN, UAE
 Quality Registrar Systems certify that the management system of the above organization has been audited and found to be in compliance with the QRS requirements for registration of the management system standard detailed below:
ISO 9001:2015
 Quality Management Systems
 Scope of work
 MANUFACTURING AND SUPPLY OF HIGH QUALITY PHENOLIC FOAM (PF), POLYISOCYANURATE (PIR), POLYURETHANE (PUR), CELLULAR GLASS, CALCIUM SILICATE INSULATION MATERIALS FOR PIPE, COLD, CRYOGENIC, DUCT, SLAB, WALL, ROOF & SOFFIT INSULATION, PRE-INSULATED PIPES AND FITTINGS FOR UNDERGROUND/DISTRICT COOLING PIPING, PHENOLIC FOAM/POLYISOCYANURATE PRE-INSULATED AIR DUCT PANELS, POLYURETHAN (XPE) PIPE AND DUCT INSULATION, EXPANDED POLYSTYRENE (EPS), EXTRUDED POLYSTYRENE (XPS) & INSULATION ACCESSORIES
 EA 14
 Certificate No: AMU-1007
 Originally Registered: 25 OCT 2015
 Latest Issue: 25 OCT 2018
 Valid up-to: 24 OCT 2021
 Quality Registrar Systems
 MANAGING OFFICE ADDRESS:
 Quality Registrar Systems
 P.O. Box :26826
 United Arab Emirates
 Tel: +971-2-6714302
 Fax: +971-2-6741449
 www.qrsyst.com

UNITED ARAB EMIRATES
 Ministry of Interior
 Civil Defence G.H.Q
 Civil Defence Department of U.A.Q
 دولة الإمارات العربية المتحدة
 وزارة الداخلية
 القيادة العامة للدفاع المدني
 إدارة الدفاع المدني أم القيوين
 شهادة تقدير
 Appreciation Certificate
 تقدم إدارة الدفاع المدني أم القيوين بجزيل الشكر والتقدير إلى السادة / الشرق الأوسط للعزل الحراري وذلك لتعاونهم مع إدارة الدفاع المدني أم القيوين " مع تمنياتنا لهم بدوام التوفيق والنجاح "
 د. العقيد
 سالم حمد سيف بن حمزة
 مدير إدارة الدفاع المدني أم القيوين
 حرر بتاريخ
 10 ديسمبر 2019

شكرو وتقدير
CERTIFICATE OF APPRECIATION
 Dubai Central Laboratory is Pleased To Extend Its Deepest Thanks And Appreciation To
INSULTHERM MIDDLE EAST LLC
 for support in "Ramadan Gathering 12"
 16/05/2019
 Eng. Amin Ahmed Mohammed Amin
 Director of Dubai Central Laboratory
 Date: 16.May.2019

REGISTRATION CERTIFICATE
 Issue Date: 26 January 2017
 We ADCE hereby register the Supplier: **Insultherm Middle East LLC**
 ADCE Registration Number: **SP-0685**
 With the following Materials: **Phenolic Foam (PF) Insulation, Polyisocyanurate (PIR) Insulation, Pre-Insulated Air Duct Panel, Polyurethane (PUR) Insulation, Pre-Insulated Pipe & Fitting, Roof & Wall Insulation, Cellular Glass Insulation, Calcium Silicate Insulation Perlite Insulation (Insultherm)**
 Note:
 1) It is the role of the Consultant to select materials from the registered list.
 2) The specifications of the selected materials are the sole responsibility of the Consultant.
 3) Nothing in this Registration Certificate absolves the Supplier or the Consultant from any liability towards any party; ADCE does not make any warranty or representation as to the quality, fitness for purpose, or suitability of the Materials and shall not be liable in any party for any loss including but not limited to the financial condition of the Supplier, the performance and observance by the Supplier or the Consultant of any contract or arrangement, or the occurrence of any statements made by the Supplier or the Consultant. Any representations or warranties implied by law are excluded. The issuing of this certificate does not confer any authority upon the Supplier or the Consultant.
 4) This certificate is valid for one year from issue date.
 Projects Review Manager
 ADCE

Major Projects – Commercial



Mall of Oman - Muscat



Dubai Eye Project - Dubai



Nizwa Museum - Oman



Museum of the Future - Dubai



Dubai Hills Mall - Dubai



Jewel of Creek - Dubai



MBRL - Dubai



Nudra Villas - Abu Dhabi



HHR - Jeddah, KSA



Colombo City Centre - Sri Lanka



Khalifa Stadium - Qatar



Oman Botanic Garden - Muscat



Bee'ah HQ - Sharjah



Dubai Expo 2020



South Dhahran Home - KSA

Major Projects – OIL & GAS



Salalah LPG - Oman



DUQM Refinery - Oman



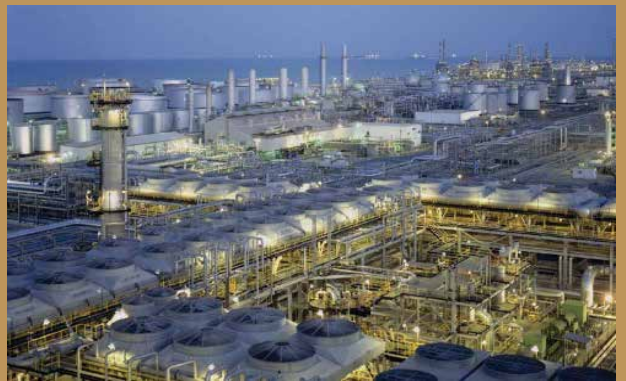
Liwa Plastics- Oman



MISCO - Oman



Saudi Aramco



SADARA - KSA



SABIC - KSA



PDO - Oman

Energy Saving, Easy to Install
Long Durability, High Thermal Performance
Environment Friendly

CONTACT INFORMATION

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ADCE REG. No. SP-0685 | KNPC REG. No. 1008475
SABIC ID: 206858 | YASREF ID: 200786

