# KIMMCO LAMELLA INSUL (KLI)



www.kimmcoinsulation.com



means insulation!





## Company Profile

KIMMCO (Kuwait Insulating Material Manufacturing Co.), a subsidiary of Alghanim Industries, was established in Kuwait in 1977. It has become a leading insulation solution provider in the Middle East, Africa, and Asia.

As a licensee of Saint-Gobain Isover, the world leader in fiberglass insulation, KIMMCO provides insulation solutions for HVAC, buildings (including roofs, walls, floors, and metal structures) and technical/industrial applications. With an annual production capacity of 35,000 MT, KIMMCO is ISO 9001, ISO 14001 and OHSAS 18001 certified, and is compliant with ISO, ASTM, DIN, BS and other international standards.

KIMMCO products are used in private, commercial, government and industrial projects for floors, walls, roofs, air-conditioning and piping, as well as process and petrochemical industries. KIMMCO also provides stonewool insulation products manufactured by its subsidiary, Rockwool India Ltd. KIMMCO insulation products contribute to green building and sustainability project requirements to achieve points for LEED and ESTIDAMA certification.

In 2014, the Alghanim Insulation Group announced the construction of its state-of-the-art, stonewool plant in Yanbu, Al-Sinaiyah, Saudi Arabia. A joint venture with Saint-Gobain

International, the plant will have an annual capacity of 64,000 MT.

KIMMCO has supplied products to prestigious projects in the region such as the Dubai Metro, Burj Khalifa, Princess Nora University and Kuwait's Al Hamra Tower, to name a few. In addition, KIMMCO is one of the approved vendors for the impressive Masdar City in Abu Dhabi.

With a strong commitment to the environment, as well as to the health and safety of the surrounding communities, KIMMCO actively collaborates with international environmental organizations and is compliant with best-in-class international environmental standards.

#### KIMMCO's COMMITMENT

KIMMCO's commitment to achieve green building and sustainability goes well beyond certifications, standards and testing. KIMMCO believes it is uniquely positioned, as an insulation manufacturer, to offer products that help protect and preserve the environment.

Through on-going efforts to provide innovative, eco-friendly and energy-efficient insulation solutions, KIMMCO has achieved its goal of becoming the regional leader in environmentally-friendly building solutions.



# Commitment to Quality

#### **Properties of KIMMCO Glasswool Products**

- Excellent thermal performance
- Superior acoustic performance
- Excellent fire safety
- Environmentally friendly: made from abundantly available, non-strategic materials like sand and up to 80% recycled glass.
- Suitable for a wide variety of applications (flexible, semi-rigid, rigid and extra-rigid)
- Address a variety of performance requirements (wide range of facing materials)
- Easy to cut and install, minimum wastage on site
- Comparatively light weight
- Dimensionally stable
- No sagging or settling
- Complies with international standards

#### **Our Commitment to Quality**

Our Glasswool products are manufactured under license of Saint-Gobain ISOVER, a leading insulation provider headquartered in France.

Further, we have a strong commitment to quality, as recognized by our certification by international bodies such as ISO.

#### **Our Commitment to the Environment**

KIMMCO was selected as the sole insulation supplier and official collaborator with MASDAR city, the world's first zero-carbon, zero-waste city, in Abu Dhabi. We have a strong commitment to the environment, health and safety of our people, and surrounding communities, and actively collaborate with local and international environmental agencies.

Further, KIMMCO Glasswool products help developers achieve green building rating certifications such as LEED, Estidama and QSAS.

- Emirates Green Building Council (EGBC)
- Qatar Green Building Council (QGBC)
- MASDAR (The Future Build)
- Middle East Minerwool Insulation Manufacturers Association (MEMIMA)

#### **Our Product Listing & Certification**

- CE
- UL
- BV
- ABS
- DCL (Dubai Central Laboratory)



























### KIMMCO Lamella Insul (KLI)

#### **APPLICATIONS**

KIMMCO Lamella Insul is designed for thermal insulation of pipes, ducts and vessels. KIMMCO Lamella Insul is suitable for a wide range of applications in HVAC and Industrial Sector such as:

- On large pipes, pipe cluster, or over heating traces, where preformed insulation is not appropriate.
- On round or oval duct work, square, or rectangular ducts, where the full insulation thickness on corners is to be maintained.
- On tanks and vessels of various types, particularly under metal cladding or as an additional layer over existing insulation.
- Over decorative roof surfaces such as domes, arches, etc...
- and where load bearing characteristics of insulation are required.

#### **DESCRIPTION**

KIMMCO Lamella Insul is manufactured from stable glass fibers bonded with thermosetting resins. The fibers are oriented perpendicular to the plane of adhered facing material.

Easy to handle and supplied in roll form.

#### **Facings**

KIMMCO Lamella Insul is available with variety of facings to suit the application such as glass reinforced aluminium foil/kraft paper laminate (FSK), All Service Jacket (ASJ).

#### **Standard Dimensions**

Thickness (mm)	Width (m)	Length (m)
25	1.2	Upto 10
50	1.2	Upto 10
75	1.2	Upto 7.5
100	1.2	Upto 5

Non standard sizes may be available on request.

#### **PERFORMANCES**

#### **Working Temperature**

Fiber 230 °C Foil Face 100°C

#### **Permanence:**

Dimensionally stable under varying conditions of temperature and humidity, rot proof, odourless, non-hygroscopic and will not sustain vermin or fungus.

#### **Thermal Performances:**

Taste in accordance with ASTM C518.

Mean temperature	Thermal conductivity (W/m.K)	Thermal Resistance [m².k/w] for following thickness of KLI			
.€		25mm	50mm	75mm	100mm
0	0.033	0.757	1.515	2.273	3.030
10	0.035	0.714	1.428	2.143	2.857
30	0.037	0.676	1.351	2.027	2.703
50	0.040	0.625	1.250	1.875	2.500
100	0.049	0.510	1.020	1.531	2.041
150	0.060	0.417	0.833	1.250	1.667

These are typical values subject to normal manufacturing and testing variances.

Mean temperature	Thermal conductivity (Btu.in/ft²h.F)	Thermal Resistance (ft²h.f/Btu) for following thickness of KLI			
°F		1 Inch	2 Inch	3 Inch	4 Inch
32	0.23	4.347	8.696	13.043	17.391
50	0.24	4.167	8.333	12.500	16.667
86	0.26	3.646	7.692	11.538	15.385
122	0.28	3.571	7.143	10.714	14.286
212	0.34	2.941	5.882	8.824	11.765
302	0.42	2.381	4.762	7.143	9.524

These are typical values subject to normal manufacturing and testing variances.

#### **Fire Safety**

Base fibres are non combustible when tested in accordance with BS 476 (part 4), ASTM E 136.

KLI achives class 1 when tested as per BS 476 part 7. KLI achives class 0 when tested as per BS 476 part 6 & 7.

Glass reinforced Aluminium/Kraft laminate facing (FSK) are UL classified as follows;

Flame spread Less than 25 Smoke developed Less than 50

when tested according to ASTM E 84 procedure.

#### **Moisture Absorption**

Less than 1% by volume when tested in accordance with BS 2972 or 6676, ASTM C 553, KIMMCO Lamella Insul does not absord moisture from the ambient air not 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.

#### **Vapour Permeability**

When tested in accordance to ASTM E 96 (desiccant method) FSK or ASJ faced KIMMCO Lamella Insul achives permeance of less than 0.02 Perm.

#### **NON TOXIC:**

KIMMCO Lamella Insul is not hazardous to health.

(see KIMMCO MSDS).

#### **No Corrosion**

Does not cause or accelerate corrosion of steel, copper or aluminium.

#### **Flexibility**

KIMMCO Lamella Insul will permit expansion and contractions of the metal pipe, duct or vessel without cracking or shrinking.

#### **CONFORMITY TO STANDARDS**

KIMMCO Lamella Insul complies with the following standards:

#### **American Standards**

ASTM C 165, 168, 411, 665 § 13.8 and 13.9, 680, 871, 1045, 1104/1104M, 1335, 1338; E 84, 96.

UL 723

F.S. HH-B-100B(type1) NFPA 255, ASHRAE 90.1 requirements

#### **British Standards**

BS 476( part 4,6 &7), 874, 3533, 5643, 5970

#### **German Standards**

DIN 18165,52612

#### ISO

4200, 8497, 9229, 9291





### **KIMMCO**

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