KIMMCO ISOVER
SAINT-GOBAIN

LEADER IN INNOVATIVE
SUSTAINABLE SOLUTIONS

ACOUSTIC FLOOR INSULATION (KAFI)

www.kimmco-isover.com

WE'RE **THE LEADERS** OF MINERAL WOOL **INSULATION** IN GCC

KIMMCO-ISOVER is a joint-venture between the international leader in construction products Saint-Gobain and Alghanim Industries which is one of the largest privately owned companies in the gulf region. KIMMCO-ISOVER mineral wool solutions are the preferred choice for most of the consultants, contractors and developers in different applications such as HVAC, Façade, Partition, Roof, Industrial, OEM and others.

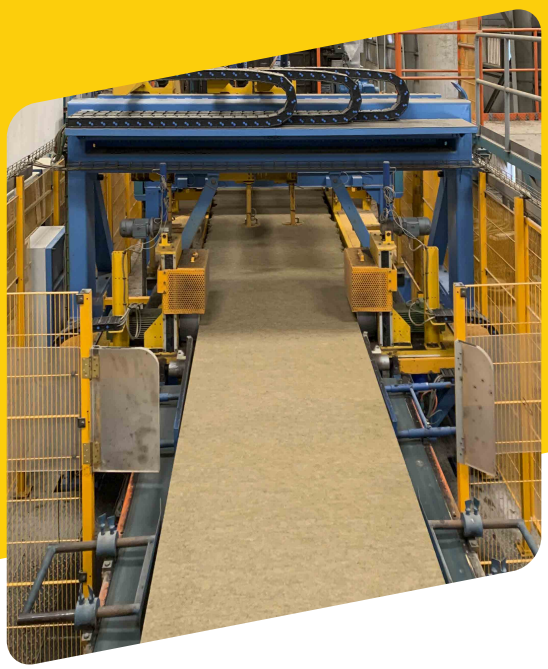
OUR PRODUCTION CAPABILITIES CAN ALWAYS **FULFILL** YOUR **DEMAND & STANDARDS**

KIMMCO-ISOVER owns 2 factories to cover all the market requirements of Mineral Wool insulations, one in Kuwait for Glass Wool Insulation and another in Saudi Arabia for Stone Wool insulation. We're exporting our products to more than 30 countries in Asia, Levant and Africa.

GLASS WOOL PLANT

ISO 9001 ISO 14001 ISO 45001

Over 45 years of expertise in manufacturing and supplying glass wool product to markets in GCC, Asia, Africa and other regions



STONE WOOL PLANT

ISO 9001

Highly sustainable Stone wool manufacturing technology which reduces production wastage to almost Zero.

KIMMCO-ISOVER
Acoustic Floor Insulation (KAFI)

APPLICATIONS

Floating floor with a screed of cement or reinforced concrete in multi storey buildings such as dwellings, apartments etc.

DESCRIPTION

KAFI is high density Glass mineral wool slabs with optimized dynamic stiffness designed for perfect sound insulation in floating floors. These boards are made of thermally and acoustic efficient glass fibres bonded with thermosetting resin binder.

FACINGS

KAFI is available unfaced or with a glass reinforced aluminium foil/kraft facing (FSK) which combines a pleasing appearance with excellent vapour resistance.

KAFI is available in following dimensions:

STANDARD DIMENSIONS

Thickeness (mm)	Width (m)	Length (m)
15	0.6, 1.2	2.4, 0.6, 1.2
20	0.6, 1.2	2.4, 0.6, 1.2
25	0.6, 1.2	2.4, 0.6, 1.2
50	0.6, 1.2	2.4, 0.6, 1.2

Other densities are available on request

PERFORMANCE

DURABILITY

KAFI is rot proof, odorless, non-hygroscopic and does not breed or promote growth of vermin , fungus or bacteria and will not decompose through continual exposure to the elements.

OPERATING TEMPERATURE

Glass Mineral wool	upto 232 °C (450 °F)
FSK	100 °C (212 °F)

WATER ABSORPTION

Less than 1% by volume when tested in accordance to ASTM C 1104

THERMAL CONDUCTIVITY

Less than 0.035 W/m °C at 25 °C mean temp, when tested in according to ASTM C 518, BS 874.

THERMAL RESISTANCE

Thickeness (mm)	Thermal Resistance	
	$m^2.K/W$	$BTU.in/ft^2.h$
15	0.42	2.4
20	0.57	3.2
25	0.71	4.0
50	1.42	8.1

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

FIRE SAFETY

COMBUSTIBILITY

Non combustible when tested in accordance with BS 476 (Part 4), ASTM E 136,

SURFACE BURNING CHARACTERISTICS

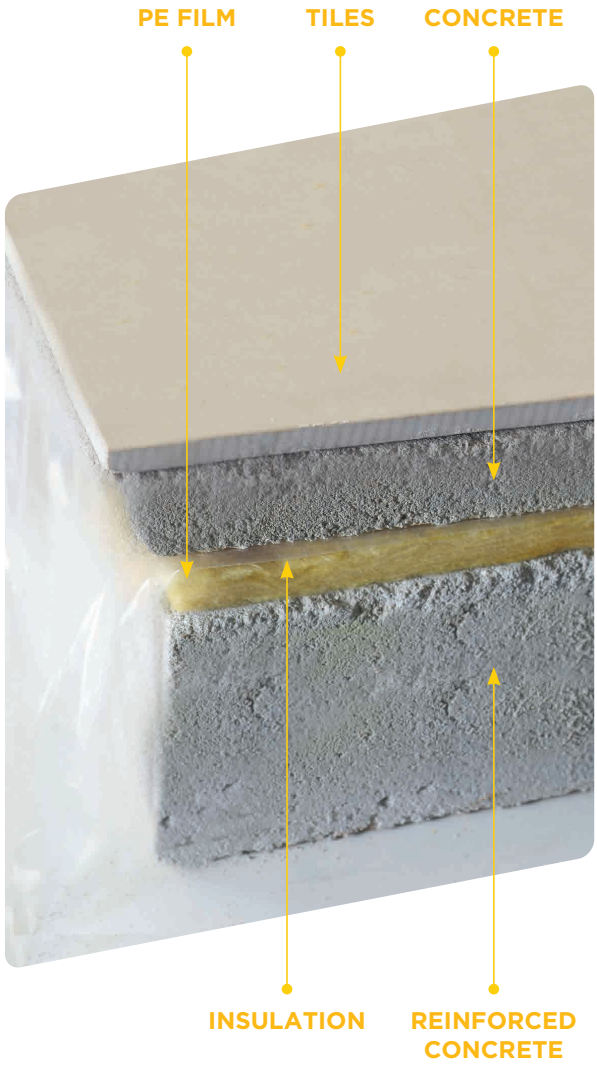
When tested as per ASTM E 84 / NFPA 255 / UL 723
Flame Spread Index - not over 25
Smoke Developed Index - not over 50
Class 1 when tested in accordance to BS 476 (part 7)
Class 0 when tested in accordance to BS 476 (part 6 & 7)

RESISTANCE TO COMPRESSION

KAFI is very rigid and achieves resistance to compression of 2.5 KPa at 10% deflection when tested in accordance to ASTM C 165

ACOUSTICS

KAFI is very rigid and achieves resistance to compression of 2.5 KPa at 10% deflection when tested in accordance to ASTM C 165



Product		Sound Absorption coefficient at the octave frequencies Hz						
Type	Thickness	125	250	500	1000	2000	4000	NRC
KAFI 25	25 mm	0.13	0.27	0.79	0.97	1.96	0.89	0.75

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

IMPACT SOUND INSULATION

Impact noise in multi-family dwellings is generated by footfalls, scraping furniture, hanging doors, vibrations from loud music and plumbing noise. The acoustic energy due to impacts passes through the building structure and creates noise in nearby rooms.

To provide the appropriate noise reduction the floor should be designed to reduce impact and airborne noises. IIC (Impact Isolation Class) descriptions will be used in describing the floor performance.

IIC RATING AND CORRESPONDING PERFORMANCES

IIC Rating	Performances
<45	Poor Footfall noise is clearly audible and objectionable
45 to 50	Minimal Footfall noise is easily audible and midly objectionable
50 to 55	Above average Footfall noise is slightly audible and tuypically not objectionable
55 to 60	Very Good Footfall noise is barely audible
60+	Excellent

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

The structural base floor of the dwellings which is generally 300mm thick concrete has IIC value of 35. If the floor finish is a "hard surface" such as marble, tile, hardwood impact noise travels through the floor system like it would with the concrete alone. Adding a resilient underlayment (Acoustic Floor Insulation) between the hard floor toppings and the structural concrete slab provides an improvement of 22dB to make the overall floor impact isolation (IIC) as 57and more.

TYPICAL INSTALLATION

A floating floor is required to annihilate transmission of vibrations through the building structures, transmission of impact sounds to the other parts of the construction.

•The concrete floor is cleaned carefully.

TYPICAL INSTALLATION PROCEDURE

A. STRAIGHT PIPES

A strip of insulation is applied along the wall perimeter (Fig 1)

One layer KAFI is laid down. Boards are perfectly joined (Fig 2)

In case pipes have been laid on the floor, gravel is put on the entire floor surface to cover the pipe-work. Polyethylene film is laid on top of the gravel and one layer of KAFI is laid down.Boards are perfectly joined (Fig 3)

Two polyethylene films 0.1 mm thick are laid on the top of the insulation. The films are overlapped. The lengthwise edges of the film are superposed by 15 cm (Fig 4)

The polyethylene film should go up against the insulation along the wall perimeter to avoid noise path between the floating floor and the walls.Reinforced concrete, 4 to 5 cm thick, is casted on the top of the polyethylene film (Fig 5). The steel reinforcement has to be in the middle of this concrete floating floor.

Ceramic tiles or other finishes are laid on the concrete (Fig 6)

The extra insulation and polyethylene film along the wall perimeter is removed (Fig 7)

Silicone sealant or elastic filling is added on top of the exposed insulation strips along the perimeter.Skirting is done using ceramic tiles or other finishes (Fig 8)

Fig 1

Fig 2

Fig 3

Fig 4

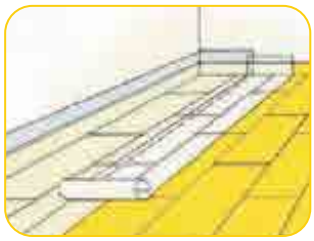


Fig 5

Fig 6

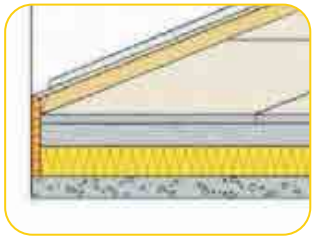
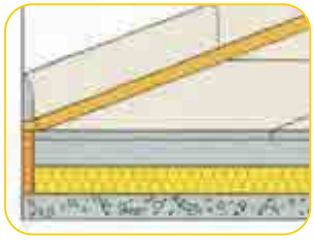


Fig 7

Fig 8



KIMMCO ISOVER SAINT-GOBAIN

COMMITMENT TO QUALITY

Properties of KIMMCO-ISOVER Products

- Excellent thermal performance
- Superior acoustic performance
- Excellent fire safety
- Environmentally friendly: made from abundantly available, non-strategic materials.
- 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 in weight
- Dimensionally stable
- No sagging or settling
- Complies with international standards

Further, we are members of the following industry associations:

- Emirates Green Building Council (EGBC)
- Kuwait Green Building Council (KGBC)
- Qatar Green Building Council (QGBC)
- Singapore Green Building Council (SGBC)
- MASDAR (The Future Build)
- Middle East Mineral wool Insulation Manufacturers Association (MEMIMA)

Our Commitment to the Environment

KIMMCO-ISOVER 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-ISOVER products help developers achieve green building rating certifications such as LEED, Estidama and QSAS

Our Product Listing & Certification

- DCL
- BV
- UL
- ABS
- CE
- EUCEB

Our Commitment to Quality

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

KIMMCO isover
SAINT-GOBAIN

@kimmcoisover
@KIMMCO
@kimmco_isover_insulation
@KimmcoKuwait
www.kimmco-isover.com
kimmco@kimmco-isover.com
marketing.ki@kimmco-isover.com

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