

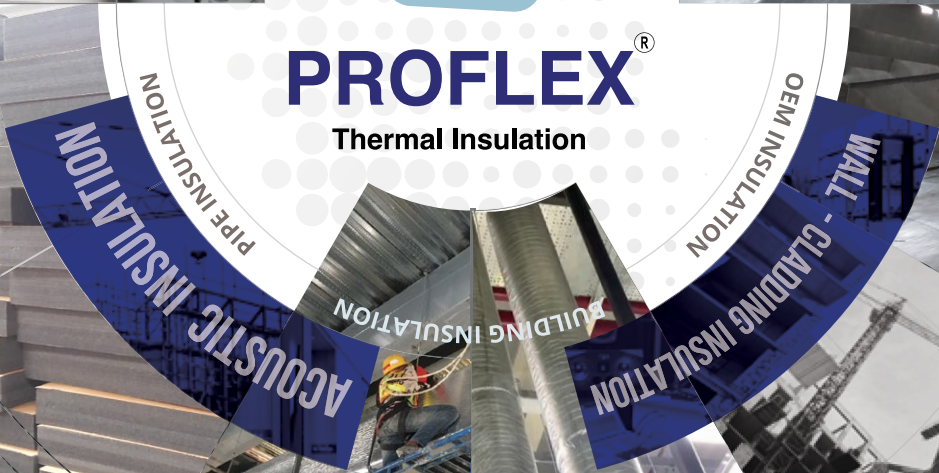
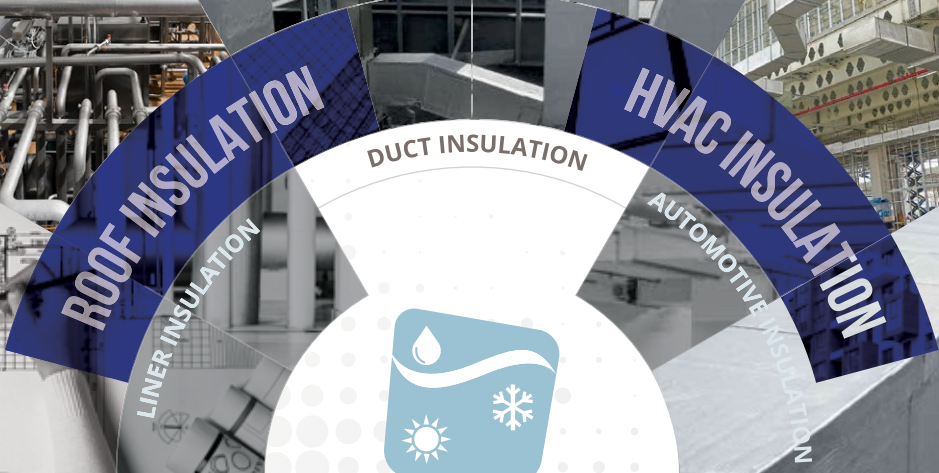


PROFLEX[®]

Thermal Insulation

****12** YEAR WARRANTY

SAVE YOUR ENERGY AND COOLING COST



PROFLEX[®]
Thermal Insulation

MADE IN **INDONESIA**

PROFLEX[®]
XLPE/IXPE

CROSSLINKED CLOSED CELL FOAM +FR

SAVE
ENERGY & COOLING COST
With CrossLinked Foam



** TERM AND CONDITIONS APPLY

A New Benchmark



Building Standard Insulation

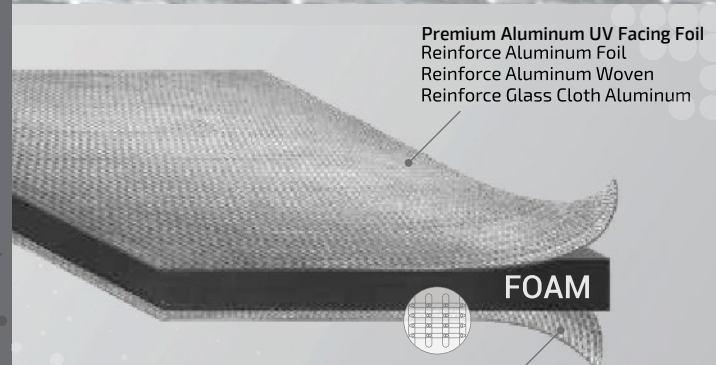
Proflex is a product manufactured from polyolefin which is very suitable for use in HVAC insulation, roof insulation, walls, pipe insulation which provides excellent performance.

Proflex is a product with high innovation that uses irradiation technology which produces Physically (Irradiation) and chemically cross linked closed cell foam products with a Fire Retardant Class 0 level (BS476 PART 6 & 7) so it is very safe to use as a building insulation material.

With more than 25 years of experience, Proflex produces foam revolutionizes insulation products that use foil layers. Proflex allows for a much faster and more efficient installation than when using older insulation technology.

Proflex products are guaranteed up to **12 Year certified warranty so that Proflex products are extremely durable and long lasting.

Factory commitment to maintaining quality and quality is proven by conducting ISO 9001 and UL94 & UL723 certification tests.



Premium Aluminum UV Facing Foil
 Reinforce Aluminum Woven
 Reinforce Glass Cloth Aluminum
 Premium Aluminum UV Facing Foil

Proven Reliability & Experience Since 2001 (special quality material control)

Proflex Insulation developed after continuous and understanding the needs of the changing demands of the new generation equipment solution.

Proflex is a chemically and physically (Irradiation) Cross-Linked Polyolefin Insulation also known as XLPE/IXPE duct insulation is a new age widely used to insulate heating, ventilating, air-conditioning, refrigeration (HVAC/R). The exceptional flexibility of Proflex is great help to the installer, Proflex is a light weight, non fibrous, flexible and soft non hazardous and easy to work material with excellent thermal insulation properties, it is dust free and CFC free, Proflex insulation is the best solution of thermal transfer. Proflex provide the best co-efficient of thermal conductivity, resilient and resistant to moisture, Proflex design and suitable in the HVAC, building construction and roofing industries.

Application Area:

Duct insulation, Pipe insulation, raised floor insulation, under slab insulation, tank insulation, wall insulation, roof insulation other.

We offer an extensive range of duct and pipe insulation they are thermostatically balanced in nature and long service life.

Environmentally Friendly

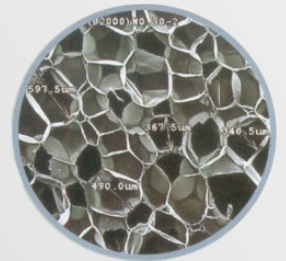
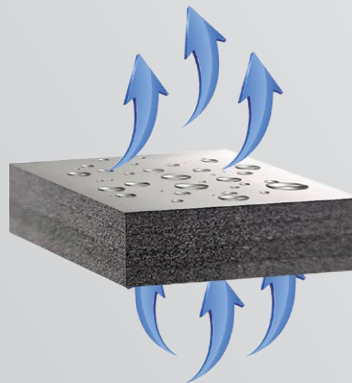
Proflex is CFC /HCFC free, Zero ozone Depletion potential (ODP), Global warming potential <5 (GWP), non-porous, fiber free, dust free and resistant to mold fungigrowth. It greatly improves Indoor Air Quality of air condition system without causing skin irritations and health hazard.

Technically Superior

Our distinctive cross-linked technology produces a smaller and more evenly fine cell structure. Thermal conductivity and vapour permeability, which are the key factors in insulation performance, are directly affected by the cell structure.

Thermal Conductivity

0.034 W/m.k (23°C) It is the lowest amount of any flexible insulation material.



Almost Zero Vapour Permeability

Permeability This property guarantees that the thermal conductivity stays relatively constant for up to 15 years which will give a significant contribution to building sustainability and lowering energy-cost.


PROFLEX®

XLPE/IXPE

CROSSLINKED CLOSED CELL FOAM +FR

info@fmc-metalfactory.com | www.fmcmetalfactory.com

WALL INSULATION CLADDING INSULATION
 DUCT INSULATION PIPE INSULATION BUILDING INSULATION
 ROOF INSULATION HVAC INSULATION
 AC INSULATION

Third Party Certification & Testing

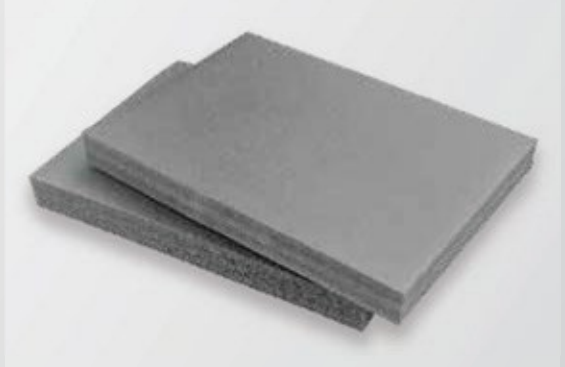
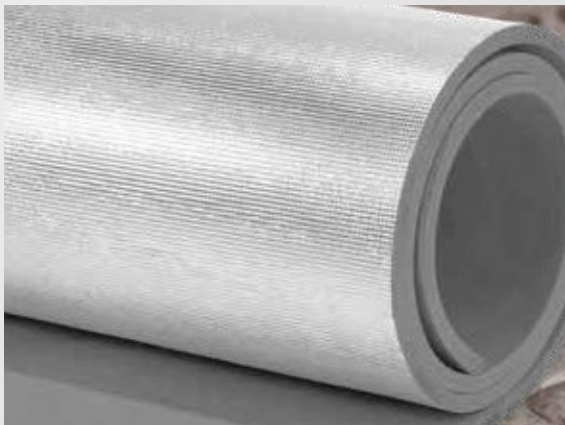
To maintain the quality of products that are produced in-house from our factory, we carry out certification testing periodically through a credible and internationally recognized institution.

International Fire & Smoke Standards for building insulation (roofing/duct/pipe insulation, etc)

- > British Standards BS 476 (Parts 6 & 7).
- > American Standards ASTM E84
- > American Standards UL94 HF-1
- > American Standards UL723

Quality Materials

To maintain the stability of the quality of our products, we conduct routine UL 723 (compiled with ASTM E84) for raw material and product line audits every 3 months.



Intertek Testing Service NA, INC
Elemendorf - USA



PSB Singapore



AL KHAILI TOWER UAE

PROJECT REFERENCE



Al Rayan Stadium and Precinct Project Qatar



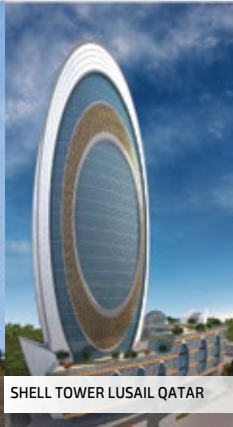
ZAYED SPORTS CITY ABU DHABI UAE



TWIN TOWER LUSAIL QATAR



AIR PORT OFFICE BUILDING QATAR



SHELL TOWER LUSAIL QATAR



STUDIO COMPLEX FILM ALULA

OTHER VARIANT PRODUCT

Tube Insulation

Proflex pipe insulation has excellent durability & flexibility power. It is used in flexible temperature between -70°C ~ 100°C . Variations of different inner and outer dimension can be constructed to custom fit and insulate almost any pipe line. It is suitable for Pipe insulation for hot/cooling water, Duct protector, Air conditioning copper hose, Thermal Insulation & anti-moisture for ceiling & wall etc.



Advantages

Thermal Insulation

Proflex, is Chemically & physically Irradiation Crosslinked Closed Cell Foam +FR (Class O) composed of independent air cell, is very excellent in insulation effect as is very low thermal conductivity and long durability.

No Dew

Proflex is perfect in Dew prevention as Proflex foam composed of Dense independent air cell.

Semi-permanence

Proflex is polyolefin foam, which last almost permanent without changes.

Flexibility & Anti-Noise/Vibration

Proflex has both closed cell which protects from noise and open cell that absorb noise.

Semi-incombustibility

Semi-incombustible foam, is not flammable and no toxic smoke when fire.

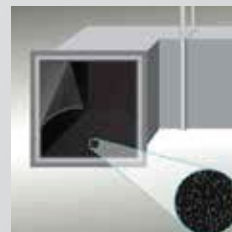
Acoustic Liner

Crosslinked open cell polyolefin foam with self adhesive backing for duct lining.



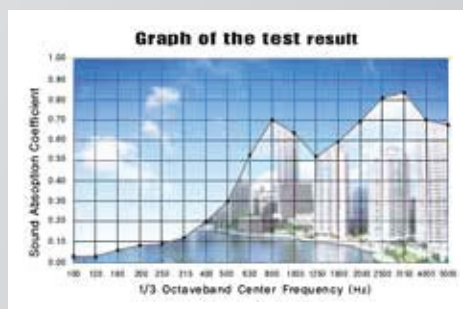
Product features

- Excellent Sound Absorption in all kind of air ducts and buildings
- Low thickness, Lightweight and durable resistant
- Superior Resistance to Fungi and Low VOC for Air Quality
- Completely User Friendly, Easy and Quick Installation
- Self Adhesive Backing



Technical Details

- Sound Absorption coefficients : 0.45 (thickness 8mm) (ASTM C423)
- Density : 33kg/m³ (foam core only)
- Thermal conductivity : 0.034 W / mK (ASTM C518)
- Resistance to Fungi : Zero growth (ASTM G21)
- Operating Temperature Range : 70°C ~ 100°C
- Thickness range : 5mm ~ 25mm



Technical Support & Distribution Network



UAE | OMAN | KUWAIT | QATAR | SAUDI ARABIA

info@fmc-metalfactory.com | www.fmcmetalfactory.com

FUNCTIONAL APPLICATION

Ducting Insulation

Premium quality insulation products with standard green building insulation, with low thermal conductivity to prevent condensation from occurring so that energy is not wasted and can provide optimal efficiency



Piping Insulation

Factory heat bonded fully enclosed cross-linked foam with special aluminum sides for extra durability and high vapor resistance.



Roofing & Cladding Insulation

Proflex foam reflectivity from radiant heat & reduces increased heat conduction in roof coverings and sheet metal. also low thermal conductivity with more resistance value to protect the building from heat conduction & radiation.



Wall & Acoustic Insulation (sound proof & absorption)

Noise canceling material acts as a barrier between two rooms adjacent to each other, applicable to a house, hotel or apartment.



Complete Range for building Insulation Needs

Proflex foam sheet is available in a complete range to cover typical building insulation requirements:

WALL INSULATION **CLADDING INSULATION**
 DUCT INSULATION **PIPE INSULATION**
ROOF INSULATION **BUILDING INSULATION**
ACOUSTIC INSULATION **HVAC INSULATION**

**PROFLEX[®]**

Thermal Insulation

TECHNICAL SPECIFICATIONS

TECHNICAL DATA SHEET

Material	Physically (Irradiation) & Chemically	
	:	Crosslinked Closed Cell Polyolefin Foam with Fire Rating Class 0
Lamination / Reinforced	:	Aluminum Foil (FR) Aluminum Woven Foil (FR) Glasscloth Aluminum Foil (FR)
Density	:	25 kg/m ³ (core foam only) (custom density by request & confirmation)
Thermal Conductivity (ASTM C518)	:	0.034 W/m.k (@temp 23°C) / Humidity (RH) 56%
Water Vapour Transmission (ASTM E96 / TUV Singapore)	:	0.0018 g/m ² · hr
Water Vapour Permeance: (ASTM E96 / TUV Singapore)	:	0.003 perm
Resistance to fungi: (ASTM G21 / SGS Korea)	:	Zero Growth (Result Test : 0)
VOC Emission Rate (ASTM D5116) Korea Conformity Laboratories (KCL)	:	Low VOC emitting (Total Volatile Organic Compounds 0.036 mg/m2.h)
Ozone Resistance	:	Excellent
UV Resistance	:	Excellent
Noise Reduction Coefficient (ASTM C423) Korea Lab Accreditation Scheme (Kolas)	:	NRC 0.45 8mm Thickness
Operating Temperature Range	:	-80°C ~+ 120°C (no adhesive)
Resistance to bacteria	:	Excellent
Resistance to Fungi	:	Zero Growth
Chemical resistance	:	Excellent
Compression	:	21.48 Kpa (Load 112.8N)

FIRE & SMOKE PERFORMANCE

BS 476 part 6 & 7 (fire rating class)	:	Class 0
ASTM E84 (INTERTEK Testing Service - Elmendorf United State of America)	:	COMPLIES (NFPA 255 / UL 723 / UBC 9-1) Flame Spread Index 25 Smoke Developed Index 50
UL94	:	Horizontal Burn APPROVED (HF-1)

SIZE AVAILABLE

3 mm	:	30 m x 1.2 m (L : 36 m ²)
4 mm	:	30 m x 1.2 m (L : 36 m ²)
5 mm	:	30 m x 1.2 m (L : 36 m ²)
6 mm	:	30 m x 1.2 m (L : 36 m ²)
8 mm	:	30 m x 1.2 m (L : 36 m ²)
10 mm	:	30 m x 1.2 m (L : 36 m ²)
12 mm	:	30 m x 1.2 m (L : 36 m ²)

15 mm	:	12 m x 1.2 m (L : 14.4 m ²)
18 mm	:	12 m x 1.2 m (L : 14.4 m ²)
20 mm	:	12 m x 1.2 m (L : 14.4 m ²)
25 mm	:	12 m x 1.2 m (L : 14.4 m ²)
30 mm	:	12 m x 1.2 m (L : 14.4 m ²)

40 mm	:	2 m x 1.2 m (L : 2.4 m ²)
50 mm	:	2 m x 1.2 m (L : 2.4 m ²)
100 mm	:	2 m x 1.2 m (L : 2.4 m ²)

*Custom size by request

TYPE OF LAMINATION

XLPE/IXPE	Foam FR	:	Foam Only (FO)
XLPE/IXPE	Foam FR + Glue	:	Foam Only With Glue (FOG)

AF + XLPE/IXPE	Foam FR: Single Side Alum Foil / AF1
AF + XLPE/IXPE	Foam FR + AF: Double Side Alum Foil / AF2
AF + XLPE/IXPE	Foam FR + Glue: Single Side Alum Foil with Glue (AF1G)

AW + XLPE/IXPE	Foam FR	:	Single Side Alum Woven / AW1
AW + XLPE/IXPE	Foam FR + AW	:	Double Side Alum Woven / AW2
AW + XLPE/IXPE	Foam FR + Glue	:	Single Side Alum Woven with Glue (AW1G)

GC + XLPE/IXPE	Foam FR	:	Single Side GlassCloth Alum / GC1
GC + XLPE/IXPE	Foam FR + GC	:	Double Side GlassCloth Alum / GC2
GC + XLPE/IXPE	Foam FR + Glue	:	Single Side GlassCloth Alum with Glue (GC1G)

AF + XLPE/IXPE	Foam FR + AW: Single Side Alum Foil & Single Side Alum Woven (AFW)
AF + XLPE/IXPE	Foam FR + GC: Single Side Alum Foil & Single Side GlassCloth Alum (AFGC)
AW + XLPE/IXPE	Foam FR + GC: Single Side Alum Woven & Single Side GlassCloth Alum (AWGC)

SIZE PIPE INSULATION (BS/GIP/PPR/PVC)

Size Pipe (BS/GIP/PPR/PVC)	:	8 – 100 mm (1/4" – 4") 125 – 600 mm (5" – 24")
Foam TC	:	15mm – 60mm
Density	:	25 kg/m ³ ±2
Lamination	:	Foam Only / Plain (FO) Single Alum Foil (SAF) or Single GlassCloth Alum (SGC)
Type Pipe Insulation	:	Pre-Cutting type (PCT) Tube type (TBT)
Length	:	2 m / pcs (1/4" – 4") 1 m / pcs (5" – 24")

Manufacturer

**PT.TOILON INDONESIA**

Factory

Jln. Raya Serang Km. 16,8

Desa Talaga Cikupa, Tangerang – Indonesia



Partner & Exclusive Distributor For Saudi Arabia

شركة محمد عبدالرحمن فريحات للصناعة
Mohammad A. Farhat Co. For Industry

- Ⓜ P.O. Box 6599 Jeddah 21452,
Kingdom of Saudi Arabia
- ☎ +966 53 508 5181
- ✉ info@fmc-metalfactory.com
- 🌐 www.fmcmetalfactory.com

info@fmc-metalfactory.com | www.fmcmetalfactory.com