



ENGINEERING SOLUTIONS

PEB | HVAC INSULATIONS



General Brochure

ABOUT US

We furnish a vast range of HVAC solutions with a good measure of innovation and high-quality service. It is insulation & accessories trading company based in Chennai. Maruthi Engineering provides HVAC and PEB solutions with optimum cost and savvy techniques throughout South India for both commercial and industrial infrastructures. It has built a flexible approach towards customer requirements and renders relentless and timely service and provides a backup for its customers in need. It is a professionally managed company with experienced employees with decades of experience in meeting the demands of customers.

The Managing partner has had extensive experience in dealing with insulations and accessories. Almost a decade and a half have been spent in this business. He stepped into entrepreneurship in 2016 to provide insulations to HVAC&R projects and PEB industries. We have the depth of knowledge and the support capability needed to respond to any emergency situation. Our well-trained engineers are professionally trained and well experienced and reliable. We make access to world-class service easy, for all customers. Our excellent service cannot be denied. Though our methods are complex, our goal is simple. We want to serve you to meet your needs and goals.



Maruthi Engineering Solutions is committed to providing timely and innovative solutions to customers. Both our service and products are of top-notch quality at competitive costs that exceeds client satisfaction.



MISSION



VISION

We desire to become a single-window service provider for all types of HVAC&R solutions and PEB requirements. The company aims to contribute to the society by creating green building projects and products and to safeguard the environment.

We have expert professionals as our staff who stay true to their actions. Integrity is a virtue that cannot be discounted upon, under any circumstances. Our teamwork and education have taught us to serve our clients beyond their satisfaction with an innovative approach.

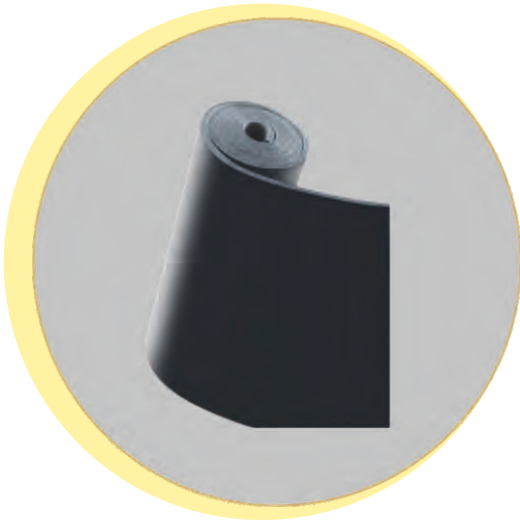


VALUES



K-FLEX ST SHEETS & TUBES:

Nitrile rubber is a versatile and flexible closed cell elastomeric insulation suitable for applications up to an approximate maximum continuous operating temperature of -200°C to +116°C. K-Flex Insulations are available with Class 'O' and Class '1'.



Application of Thermal insulation :

Refrigeration pipe work, heating and ventilation pipe work, air-conditioning pipe work.

Heating and ventilation ductwork systems.

Vessels and curved or irregular surfaces.

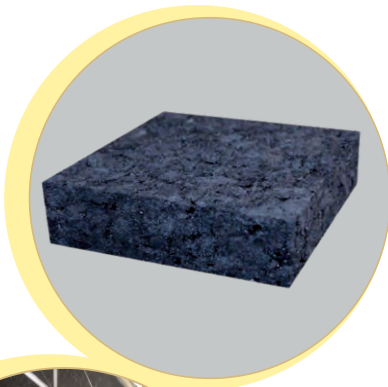
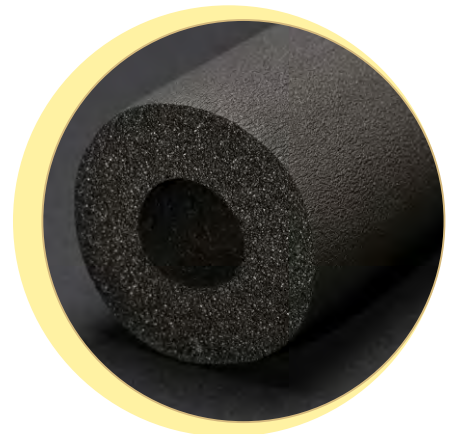
Thickness & Density :

Thickness: 06, 09, 13, 16, 19, 25, 32, 40 and 50mm.

Density: 40-60kg/M3.

K-Flex sheets are also available with various protective coverings:

- * Factory laminated Aluminium Foil facing
- * Factory laminated IC-Clad (Glass cloth) facing
- * Self – Adhesive
- * Anti-Microbial protection
- * IN-Clad & AL-Clad facing



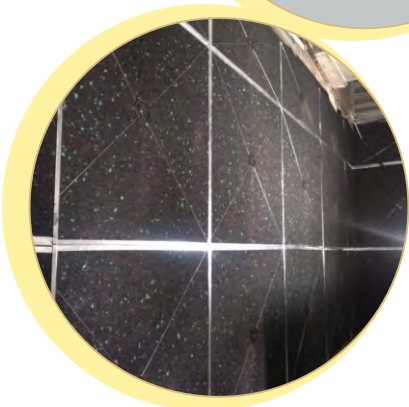
Fire behaviour:

Produces adhering to highest safety norms for fire i.e FM Global approved. K-Flex does not generate flaming droplets. Has very low flame spread and fire propagation index. It's certified as Class O as per BS 476 Part 6 & Part 7.

It is self extinguishing material & High performance acoustic insulation K-Fonik open cell processed elastomeric foam ensures the ideal acoustic insulation for all kind of HVAC & Industrials noise control Applications. also UL 94 approved.

Applications of Acoustic insulation :

- * Building & Industrial Noise Control
- * Air-conditioning Duct * AHU Rooms
- * Diesel generator set enclosure lining.





OPEN CELL INSULATION:

Thickness & Density And Variants:

- * Thickness – 10mm, 15mm, 20mm, 25mm, 30mm, 40mm and 50mm.
- * Density - 140 – 180 Kg/M3
- * Variants – Plain, Antimicrobial Protection, With Self-Adhesive

K-FLEX SOLAR HT (EPDM)

Elastomeric EPDM (Ethylene - Propylene Diene Monomer) rubber based insulation with excellent mechanical properties suitable for high temperature & Good UV resistance.

Available thickness and ID:

K-Flex EPDM is available in 13mm, 19mm & 25mm wall thickness, non-slit 2meter length ranging from 10mm ID to 89mm ID and Rolls comes with 13mm, 19mm, 25mm and 32mm thick.

Applications:

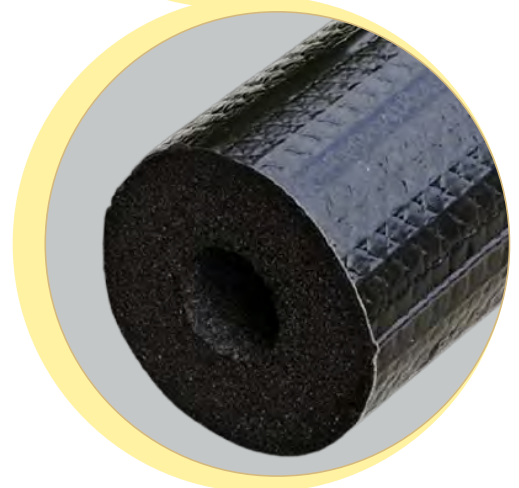
K-Flex EPDM can be used for outdoor applications with service temperatures ranging from -40°C to 150°C.

It's ideal for use on Industrial and solar system. It will help on increased energy efficiency.

K-FLEX TITAN

K-Flex TITAN is a flexible elastomeric rubber insulation with co-extruded co-polymer blend jacket tubular insulation. It is a polymeric jacketed material that offers excellent flexibility and weather resistance.

It is Self-Extinguishing, does not drip i.e Fire resistance.



Available thickness and ID:

K-Flex TITAN is black in colour and is available in 13mm, 19mm & 25mm wall thickness, non-slit 2meter length ranging from 6mm ID to 60mm ID across all wall thicknesses and additional id's depend on wall thickness.

Applications: K-Flex TITAN can be used for outdoor applications with service temperatures ranging from -50°C to 104°C. It is ideal for use on HVAC, Plumbing applications, VRF and Split Ac's etc.



K-FLEX

Authorised Distributor

www.maruthiengineeringsolutions.com

K-FLEX XLPE INSULATION

K-Flex XLPE is Crosslinked Polyethylene / Polyolefin Insulation. XLPE is used for various application areas requiring Low Thermal Conductivity and Fire Class approved product with very Flexible still tough Insulation material which offers ease of installation along with durable life span.

Application Areas :

- * Air conditions Ducting
- * Roof Insulation
- * Underdeck Insulation
- * Tank Insulation
- * Wall Insulation and many other interior



Available Thickness : 3mm to 100mm Thickness

Facings : Aluminium foil & Glass Cloth (IC Clad)

Density : 28 Kg/M³ ± 10%

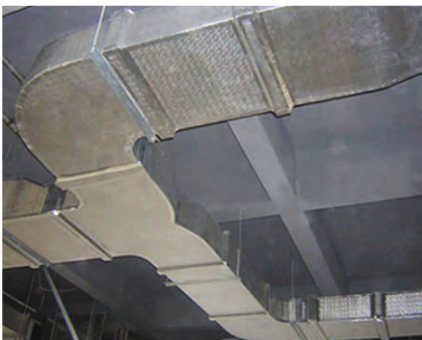
Dimensions : 1.2 Meter Width and Length will be according to the Thickness.

Thermal Conductivity : 0.0322 W/m.k @ 23°C

0.0361 W/m.k @ 36°C

Application Sectors :

- * Heating, Ventilation and Air Conditioning
- * Refrigeration
- * Pharmaceuticals
- * Solar Systems
- * Automotive
- * Hospitals * Industrial PEB's
- * OEM
- * Marine & Shipbuilding Industries



BENEFITS & ADVANTAGES :

K-Flex XLPE is a Flexible Insulation, Because of Flexible it can be installed at ease on various surfaces.

K-Flex XLPE is designed with Zero VOC, It is Formaldehyde free, It offer excellent Mould Growth and Zero Ozone Depletion.

K-Flex XLPE insulation product has been tested and certified for its properties by Third Party International Labs.

K-Flex XLPE is complying with BS 476 PART 6 & 7 Norms.



CARYAIRE VENTILATION AND EXHAUST FANS

Circular Inline Fans

Circular Inline Centrifugal Duct Fan is a Straight through radial fan, Designed for Optimum Efficiency and Low Noise

Available Model : CF 100B, CF 125B, CF 150B, CF 160B, CF 200B, CF250BB, CF 315AA & CF 315B Fan Motors have 1P-44 Enclosure with Class F Insulation. Power Supply 220V - 240V, Single Phase, 50 Hz Fan Speed can be Controlled by Frequency Variation regulators. It is Moisture Resistant and Approved for Installing in Humid and Damp Environments

Features : · Simple Installation · Less Maintenance · Low Power Consumption



Rectangular Insulated Inline Fan



Rectangular Insulated Fans are used for Exhaust Ventilation applications where noise level are more concerned and restricted space for mounting. Variations in models : RIF Series & RIF M Series

Available Model : RIF 100, RIF 125, RIF 150, RIF 200, RIF 200S, RIF 250 & RIF 315 & also in MS Series. Fan Motors have 1P-44 Enclosure with Class F Insulation. Air Quality and Sound levels can be easily modified by using Speed Regulator mounted on the fan casing, as a standard feature.

Maximum Temp of Transferred air in Deg C : -25+60

Features : * Low Noise * Easy Installation * Less Maintenance * Optional Air Filter * Low Power Consumption

Propeller Fans

The Propeller Fan is a comparatively simple form of a fan with a Metal Sheet, 3-6 bladed Impeller. Fan Motor is External Rotor Motor of Class F Insulation.

The Fan Inlet and Outlet has a wire guard for Protection. Fans from 200-300mm dia have IP-44 Protection and from 350-630mm dia fans have IP-54 Protection.





CARYAIRE VENTILATION AND EXHAUST FANS

Direct Drive Cabinet Fans



Cabinet Fans are manufactured in 20 Gauge galvanized steel complete with inlet and outlet spigots & mounting brackets.

Available Model : CDIF 9/7, CDIF 09, CDIF 10, CDIF 12, CDIF 20 & CDIF 24.

Multi-Speed Motors with Speed Regulators.

Cabinet Fans with EC Motor are also available.

Access Panels for easy maintenance and inspections.

Single Phase, Squirrel Cage Induction motors with long life bearings Insulation with Egg Crate Acoustic Lining.

Twister Ceiling Fan

Twister Ceiling Fan is suitable for Low Ceiling Heights. It gives Elegant design suitable for Modern Interiors. Low Noise Operation & 3 Speed Remote Control. Swirling Front Fascia for Effective Air Circulation. High Quality All-Copper Winding Motor with Japanese Ball Bearing.

Available Model : Twister 18.



Kitchen Exhaust Fan



Direct Driven Fans are an economic alternative to the belt driven fans since Backward Curved Aerofoil Impeller is mounted directly on the motorshaft.

Fans are Double Skin Cabinet, Powder Coated, Acoustically Insulated for Outdoor Applications. Motor Outside the Air Stream, Suitable for outdoor Applications. Openable Panels for Easy Cleaning & Maintenance. Universal Outlet can be field modified for Left, Right or Top Exhaust.

Available Model : CKE 355, CKE 400, CKE 450, CKE 500, CKE 560 & CKE 630

Dealing all Types of Caryaire Ventilation & Exhaust Fans



Pre Engineering Building Insulations

Twiga is the leading manufacturer of Glass wool insulation in India. Glass wool is the best material for Thermal and Acoustic applications. Glass wool is a lightweight, compressible insulation material. Twiga Glass wool is available in Rolls, Slabs and Boards in various densities and thicknesses and with a wide range of factory applied facings.

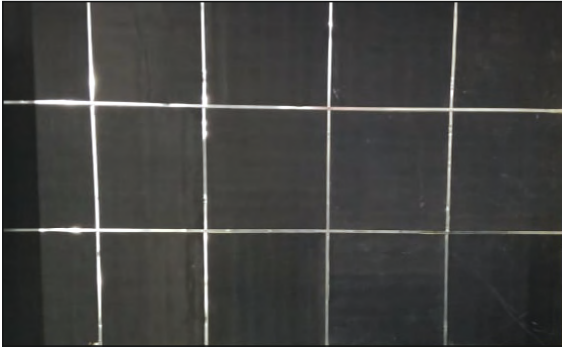
Twiga Fiberglass is a long, resilient and flexible insulation blankets are easy to handle and apply. They are strong enough to be installed under tension over the purlins. The factory applied laminations on the insulation are either aluminium or polypropylene based facing (FSK & WMP-50 respectively) that control moisture movement as well as provide exceptional mechanical support. Depending on the building design, Twiga metal building insulation can be with or without support from either welded wire mesh or mesh made of twisted twine of nylon fibers. As per customer's requirement the insulation blankets can be made with facing tabs (width-wise extensions) on one or both sides of the insulation. This helps to join the insulation blankets side-by-side during installation. Whenever necessary, Twiga can supply the products in board or panel form too. All these customizations (e.g. tailored made length, facing tabs, high strength facings etc.) help to reduce wastage, ensure better efficiency and improve productivity by reducing Installation time.



Density :
12, 16, 24, 32, 48 & 64 kg/m³

Thickness :
12, 25, 50 & 75mm

Facings :
FSK, Alugalss, WMP-50 & Tissue



GLASSWOOL ACOUSTIC BOARD

Specifications

Density: 70 to 80 Kg/cu.m

Thickness: 25 mm

Lamination: One Side FSK & Other side Black Glass Cloth

Size: 1200mm x 600mm or 3M x 1.20 M

Applications

AHU Room

Sound Attenuator / Box

Generator canopy

Vibration Control at Automobile Crash Testing Pit

Banquet

Amphitheatre

FIBERGLASS INSULATION



- * Pre-engineered buildings - roof and wall insulation.
- * Built up roofing for exhibition hall, airports, stadiums etc.
- * HVAC duct thermal, duct acoustic and mechanical room.
- * Under-deck insulation for RCC roof.
- * Cavity wall insulation- masonry constructions.
- * Drywall partition.
- * LGFS and Pre-fab structures.
- * Wall lining in multiplexes, auditorium, or any other acoustic sensitive area.
- * Ceiling insulation.

Authorised Dealer

ROCKINSUL

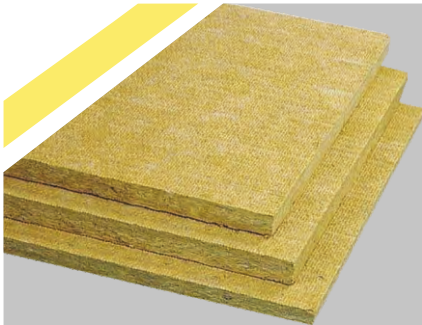
Rockwool is a type of insulation made from actual stone. It is an excellent insulator, sound baffle and possesses a very high melting point, rockwool is used in a wide array of products and applications.

Types of Rockwool :

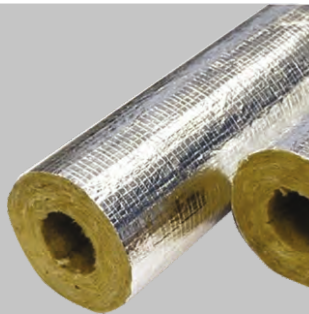
1. Building Roll
2. SLAB
3. LRB Mattress & Pipe Insulations

BUILDING ROLL:

Building rolls are comes with 36kg, 48kg, 64kg densities and 40mm to 100mm thicknesses respectively. Building rolls are available with ALG and FSK Facings, Which an efficient vapour barrier, Kraft paper facing is also available. Its working temperature is in Fibre up to 750 Deg.



Rockwool SLAB



Slabs Comes with 48kg to 144kg densities and 25mm to 25mm thicknesses. Rockwool slabs are light weight, strong, resilient, easy to handle, and easy to cut to suit intricate shapes.

LRB MATTRESS:

Lightly Resin Bonded (LRB) stonewool mattresses are made out of molten rocks transformed into fibres and then bonded with thermosetting binder forming mattress and then its stitched with one side or both side GI or SS hexagonal wire netting. LRB Mattresses are exceptionally suitable for wrapping large curve surfaces like Boilers, Equipments, E.S.P, Ducts, Ovens, Furnaces, Tanks, Pipe lines, Chimney walls etc. Its available with 75kg to 120kg densities and 50mm to 100mm thicknesses.



REFRIGERANT GASES



R 407C

It's a combination of 52% R-134a, 25% R-125 & 23% R-32

R 410A

It's a combination of 50% R-125 & 50% R-32

R 404A

It's a combination of 52% R 143a, 44% R 125 & 4% R 134a

R 407c, R 410a & R 404a is a type of HFC Near Zeotropic blend.

R 134A

This is a pure gas of 100% R 134a

R 32

This is a pure gas of 100% R 32

R 22

This is a pure gas of 100% R 22

R 134a & R 32 is a type of HFC Single component fluid.

We are dealing Refrigerant Gases for use in Commercial & Residential Air conditioning systems. We have available Cylinders in Big & Small Sizes. These are Non-Ozone depleting refrigerant.

CHILLAIRE
Authorised Dealer



SRF Gases Approved by



HITACHI

SAMSUNG



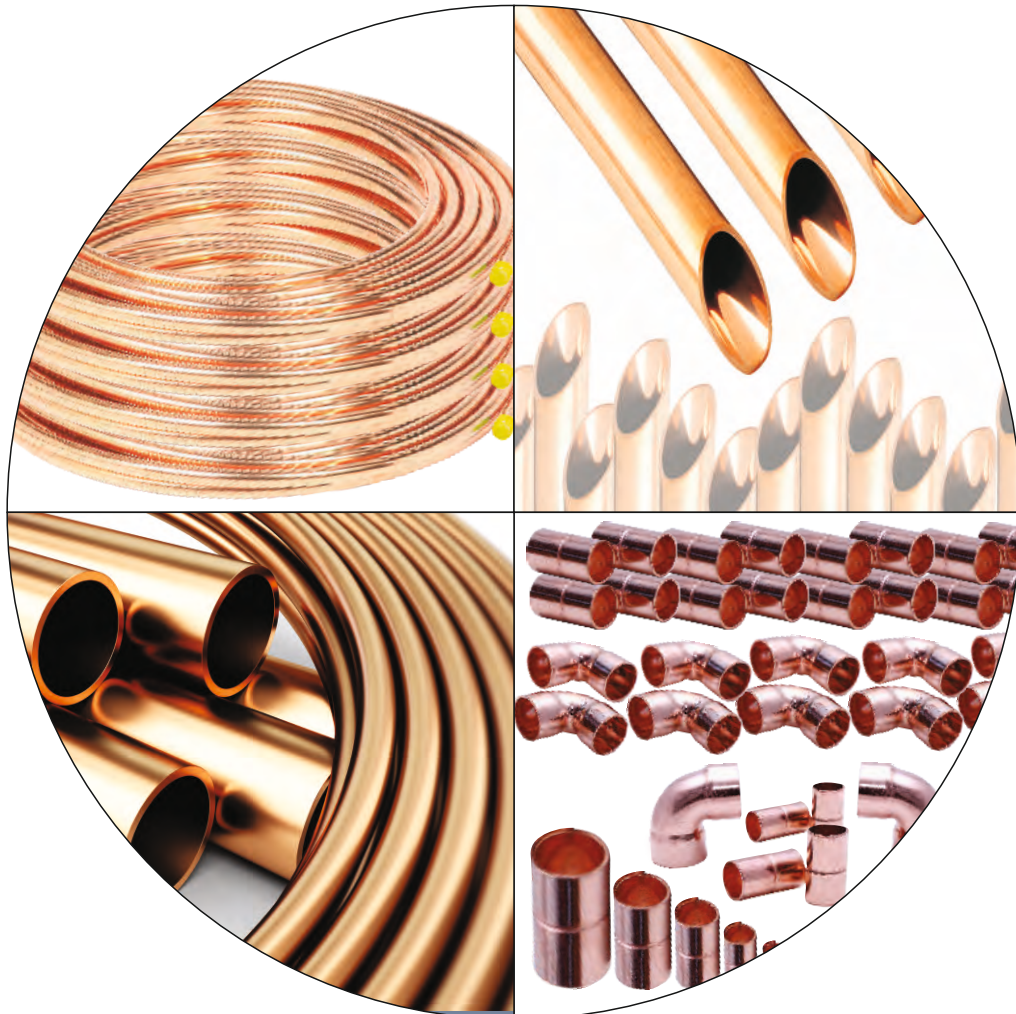
And all other leading brands

Authorised Dealers



www.maruthiengineeringolutions.com

COPPER PIPES



Available VRV & Non VRV Copper Pipes
Hard & Soft Pipes

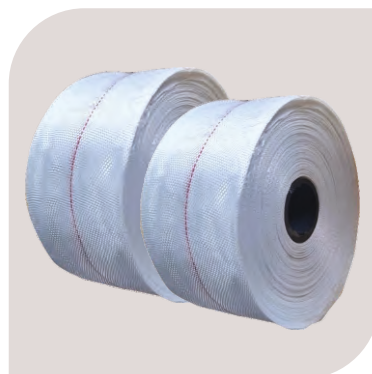
Diameter : 4.76 to 104mm dia

Wall Thickness : 0.6mm to 2.5mm

Length : 2-100 meters



CABLE TRAY,
ANCHORS AND FASTENERS

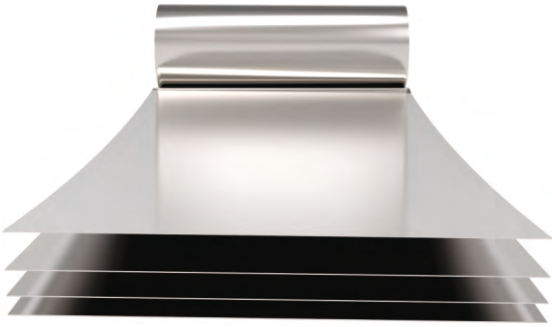


FIBRE GLASS CLOTH
(UV PROTECTING)



PROTECTIVE SHIELD
AGAINST UV RADIATION

PRODUCTS

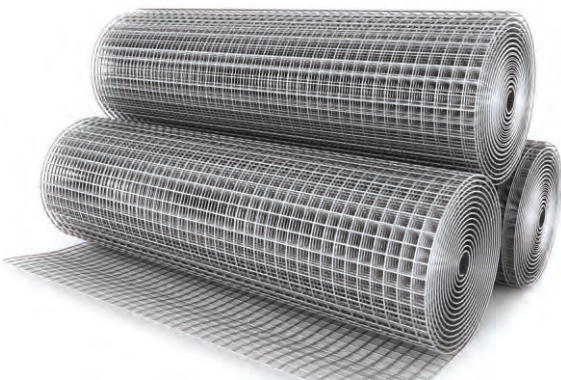


ALUMINIUM CLADDING

Available in Sheets & Coils, Ingots,
Roofing, Extrusions
Application : Duct Work, Claddings
Thickness : 0.40 – 1.5mm

ALUMINIUM PERFORATED SHEETS

Application : Wall Acoustic Protection
Available : 26, 25 SWG Close Hole



GI WELDED WIREMESH

Application : PEB Insulation Protection
Dimension : 3" X 3" Opening X 1.6mm wire dia



FASTENERS
NUTS AND BOLTS



LOUVERS



NATURAL
VENTILATOR

FIRE RATED DUCTWORK COATING

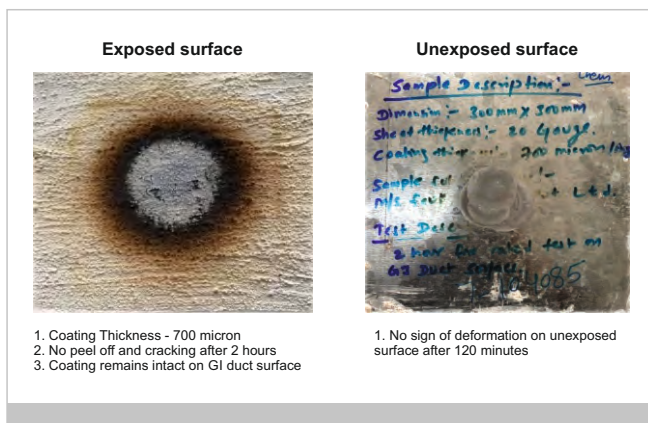
Feukem 2 Hour Rated Ductwork Coating is used to Achieving fire and smoke containment is the driving force behind design and installations of fire rated ductwork systems. Buildings are generally divided into fire rated compartments to prohibit the spread of smoke and fire in the building for a given period as specified by National Building Code of India (NBC).



PACKING AVAILABLE IN 25 KG PLASTIC CAN

Application Areas :

- * Smoke Extract
- * Car Park Extract
- * Kitchen Extract
- * Stair Pressurisation



Special Features & Benefits:

- * Fire Retardant conforms to BS 476 Part 6 & 7 certified by CBRI Roorkee
- * Tested for 2 hours (Flame directly exposed on duct sheet)
- * Certified by National Test House, Govt of India
- * Reduction in duct gauge construction or thickness
- * Reduction in duct reinforcement
- * Excellent Impact Resistance
- * Anti Corrosive & Anti Bacterial

FEUBOND SR 585

- Less Drying time
- No harmful benzene and single side application
- Good Adhesion for Rubber, XLPE & Mineral wool insulation



FEUBOND SR 995

- Less Drying time
- Low VOC
- No harmful benzene and single side application
- Superb bonding for Rubber, XLPE, EPDM & Mineral wool insulation

FEUBOND 5187

(Low VOC, Non-Flammable Solvent based Adhesives)

- LOW VOC (32 g/l)
- Fire Safe (Non-Flammable)
- Dry time is very less
- No harmful benzene
- Good Adhesion for Rubber, XLPE, EPDM & Mineral wool insulation

ACCESSORIES

ADHESIVES

K-Flex K 414 Adhesive (Low VOC level Adhesive)
K-Flex K 414 Adhesive is a one component glue of Polychloroprene Adhesive. It is suitable for Insulation in heating and refrigeration systems.

Features & Specifications :

- * Highly compatible
- * Excellent Bonding to Porous and Non Porous Surface
- * Resistance for Chemical, UV and Heat.
- * VOC Level is less than 400 gm/liter.
- * Appearance : Yellow Color Liquid
- * Packaging : Metal Pail - 5 Liters and 30 Liters



K-Bond SR 203 Adhesive (Benzene Free Adhesive)

K-Bond SR 203 is a Solvent based Adhesive. It is suitable for Nitrile Rubber and XLPE Foam Insulation.

Appearance : Honey Brown Liquid

Packaging : Metal Pail – 5 Liters and 20 Liters

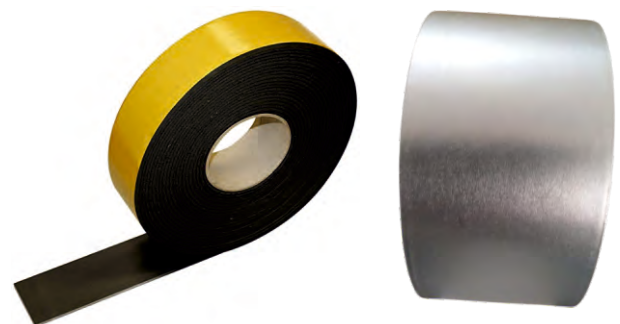
INSULATION TAPES

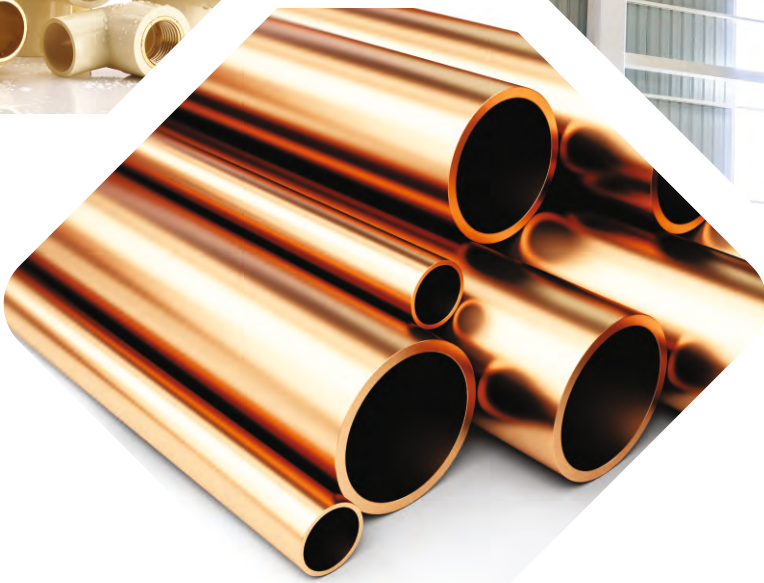
K-Flex Self Adhesive Tape - 3mm thick, 50mm width and 10 Mtr length

K-Flex Aluminium Tape - 50mm & 75mm width and 20 Mtr & 50 Mtr length

K-Flex IC-Clad Tape - 50mm & 75mm width and 20 Mtr length

Black Tape – 50mm width and 50 Mtr length.





ENGINEERING SOLUTIONS



K-FLEX
Authorised Distributor



SRF
Authorised Dealer



CARYAIRE
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Authorised Dealer



TWIGA
Project Partner



ROCKWOOL INDIA
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CHILLAIRE
Refrigerent Gases



MEXFLOW
COPPER PIPES



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