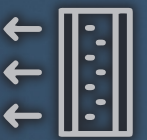


INSULATION DIVISION



حديد القطامي
QATAMI STEEL

AT FAISAL AL-QATAMI STEEL

We have advanced in leaps and bounds since 1976, embracing and advancing the natural power of steel resources to best serve our customers. Today, we are excited to introduce our full insulation portfolio line, providing our esteemed customers with an array of high-quality products and solutions for thermal insulation, fire safety and acoustic insulation, as well as mineral wool media for agricultural hydroponics, all born from the power of stone, sand, rubber and organic resources.

Our company mission is to meet and excel at the challenges of maintaining optimum thermal and acoustic insulation, fire safety and energy conservation, as well as prevent condensation, protect against weather changes, safeguard the environment and address water scarcity.

Faisal Al-Qatami Steel is proud to be the home of thermal, acoustic and fireproof insulation, and we are committed to adopt customer-centric approaches that provide high-quality, one-stop services and products that exceed your expectations. Our expertise is perfectly suited to respond to your requirements, while saving your time and money.

We supply a wide variety of insulation products, from cryogenic/cold to ambient and high-temperature thermal insulation application that includes fire safety and acoustic insulation like glasswool, stone wool, elastomeric rubber, polyolefin (XLPE), phenolic foam (PF), glasswool pre-insulated duct, foam pre-insulated duct and pipes, polyurethane (PUR) and polyisocyanurate (PIR), extruded polystyrene (XPS), expanded polystyrene (EPS), Insulated PUR, PIR & Minera Wool Roof and Wall Sandwich Panels, calcium silicate, ceramic fiber, perlite, aerogel, cellular glass and stone wool for agriculture.

You can now also benefit from our selection of compatible products that includes aluminum and stainless-steel jacketing & cladding, flexible duct connectors, insulated flexible duct, aluminum plain & reinforced tape, grills, diffuser, louvers, cork sheet, acoustic pipe proofing, fiber cement boards, adhesive, coating, and sealant.

**WHEN IT NEEDS
TO COUNT . . .
COUNT ON US!**

CONTENTS

Introduction

Benefits of Effective Insulation.

Savings	4
Comfort	4
Fire Protection	5
More with less	5

Thermal, Acoustic & Fireproof Insulation Solutions

From Cryogenic to Standard Ambient Temperature for HVAC & Cryogenic Application	6-8
From Standard Ambient to High Temperature Building Application	10-11
Very High Temperature Industrial Application	12-14
Cryogenic & Low Temperature insulation for Industrial & Multi Usage Applications	16-18

Soilless Agriculture AGRO	19
---------------------------	----

Jacketing, Cladding, & Compatible Products	20-21
--	-------



SAVINGS

Insulation is the most practical and cost-effective way to make a building more energy efficient, saving up to 45% in heating and cooling losses and at the same time lowers greenhouse gas emissions.



COMFORT

THERMAL

Efficient insulation creates homogenous temperature and provides overall thermal comfort.



ACOUSTIC

Insulation limits sound pollution. Nowadays noise became one of the major sources of discomfort, it is important to consider acoustic insulation to decrease airborne noise coming from outside to inside and other impact noise from upper floors and mechanical noise from ventilation system and machineries



FIRE PROTECTION

Most building codes insist on using non-combustible insulation material for building applications. Beside non-combustibility, it is also important to consider fire resistance of the building components. Fire protection has always been a big concern for building occupants, fire fighters, building owners and people living in the vicinity.



MORE WITH LESS

Innovative horticulture is key to a secure food supply. A growing population puts traditional food production under pressure, while challenging us to better manage our most precious resource: water. Stone wool can be engineered to absorb or repel water as needed, as well as recirculate it in a greenhouse, solving a range of problems in the fresh food supply chain, such as resource scarcity and production levels.

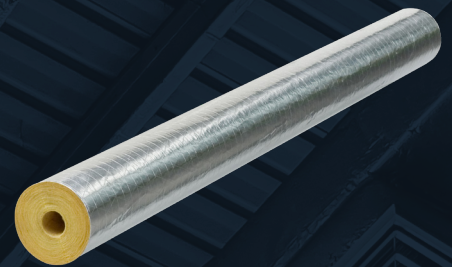
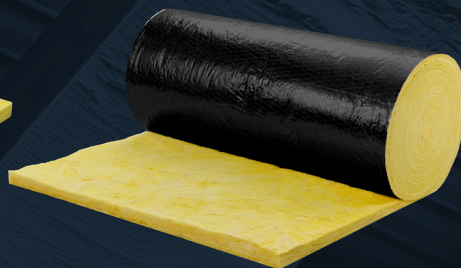
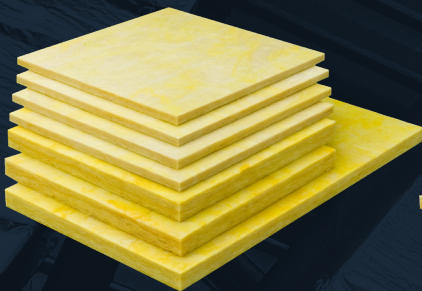
**WE PROVIDE
THE BEST**

THERMAL, ACOUSTIC & FIREPROOF INSULATION SOLUTIONS

FROM CRYOGENIC TO STANDARD AMBIENT TEMPERATURE FOR HVAC & CRYOGENIC APPLICATION

GLASS WOOL PIPE INSULATION

Glass wool is made of sand, recycled glass, limestone and soda ash in a process that traps small pockets of air between the glass. These small air pockets with the glass wool result in high thermal insulation properties, in addition to offering sound absorption.

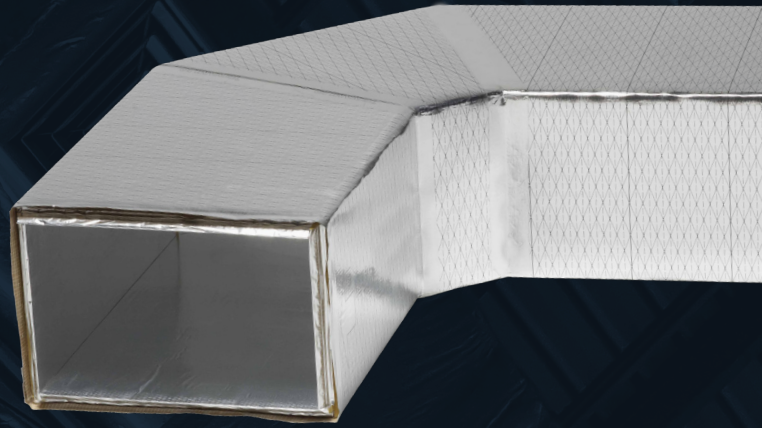


ADVANTAGES

- Superb thermal performance
- Superior acoustic performance
- Excellent fire safety
- Environmentally friendly (made from abundantly available, non-strategic materials like sand)
- Perfect for multiple performance requirements (wide range of facing materials)
- Dimensionally stable
- Easy to cut & install (minimal wastage)
- Lightweight
- Complies with international standards
- Flexible rolls, semi-rigid, rigid boards & sectional pipes

APPLICATIONS

- HVAC duct, Pre-insulated duct & pipe (chilled, supply, heat & steam water)
- Facade wall (ventilating & non-ventilating)
- Curtain wall
- Cavity wall
- Partition wall
- ETICS
- Roof & Floor
- Suspended Ceiling
- Underdeck/soffit
- Over deck/flat
- Metallic building insulation

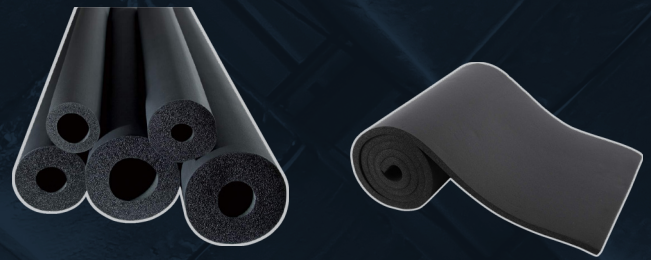


ELASTOMERIC RUBBER

The expanded closed-cell structure of elastomeric rubber makes it an efficient insulator. It is manufactured without the use of CFC's, HCFC's or HFC's.

APPLICATIONS

- ❑ Chilled water pipe & duct insulation
- ❑ Condensate pipe insulation
- ❑ Cold water pipe insulation
- ❑ Supply water pipe insulation



POLYOLEFIN (XLPE) CLOSED CELL CROSS-LINKED

APPLICATIONS

- ❑ Chilled water pipe & duct insulation
- ❑ Condensate pipe insulation
- ❑ Cold water pipe insulation



PHENOLIC FOAM (PF) PRE-INSULATED CLASS 'O' FIRE RATED CFC & HCFC FREE AIR DUCT

APPLICATIONS

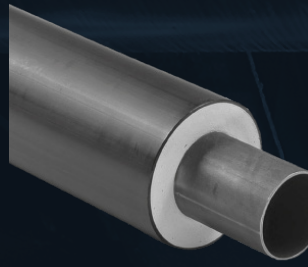
- ❑ Building services /HVAC applications
- ❑ Industry facility application
- ❑ Food, beverage & pharmaceutical industries
- ❑ Hygiene controlled & clean air environments
- ❑ High relative humidity environments
- ❑ Medical research & healthcare facilities



PRE-INSULATED PIPES & FITTINGS (PUR & PIR)

APPLICATIONS

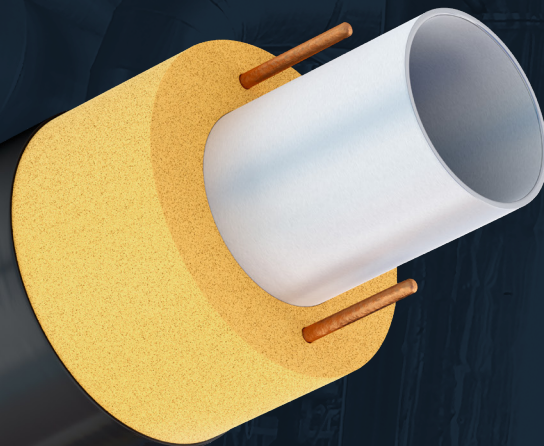
- ❑ Underground chilled water piping application
- ❑ District cooling application
- ❑ Available with ERW/seamless steel/GRP/FRP pipes



POLYURETHANE (PUR) & POLYISOCYANURATE (PIR)

APPLICATIONS

- ❑ Chilled water pipe insulation
- ❑ Duct insulation
- ❑ Cold insulation
- ❑ Equipment/vessel/tank insulation
- ❑ Cryogenic insulation
- ❑ Cold water & water supply insulation
- ❑ Cold store & refrigerated trucks
- ❑ Condensate water & hot water insulation
- ❑ Thermal pipe & duct support inserts





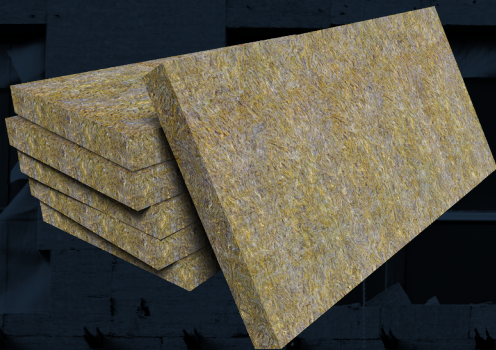
**WE KEEP IT
COOL, WARM, HOT
& VENTILATED**

THERMAL, ACOUSTIC & FIREPROOF INSULATION SOLUTIONS

FROM STANDARD AMBIENT TO HIGH TEMPERATURE BUILDING APPLICATION

STONE WOOL & GLASS WOOL

Mineral stone wool and glass wool offers heat insulation, acoustic insulation and fire protection efficiently in all places, including facade wall (ventilating and non-ventilating), curtain wall, cavity wall, partition wall, ETICS, roof and floor, suspended ceiling, underdeck/soffit, over deck/flat and metallic building insulation.

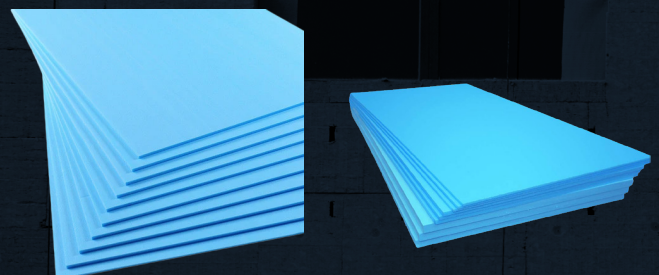


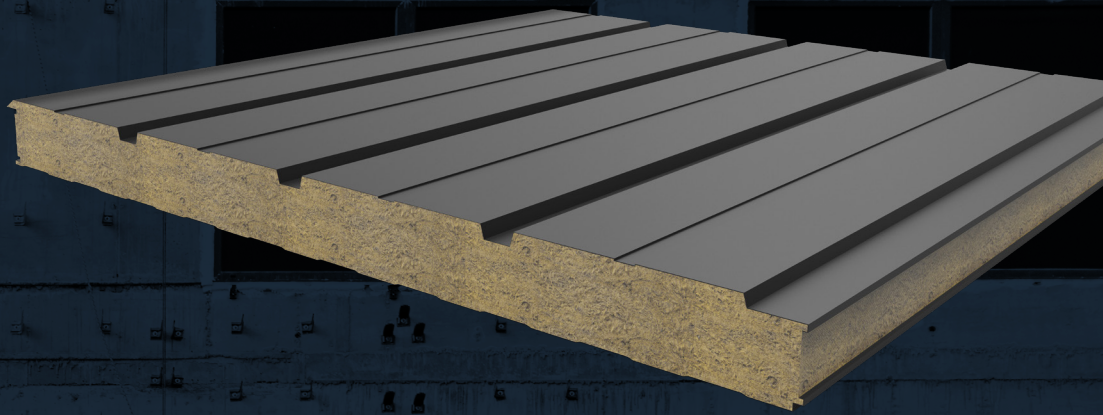
EXTRUDED POLYSTYRENE (XPS)

Made of sealed cells, linked to one another by skin on top and bottom. The sides come with or without shiplap edges, produced by a fully automated extrusion process, and offers resistance to the diffusion of water vapor and water absorption with very high compressive strength.

APPLICATIONS

- Roof & ceiling insulation
- Wall & cavity insulation
- ETICS insulation board

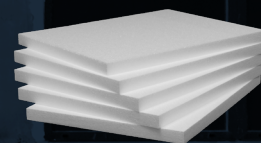
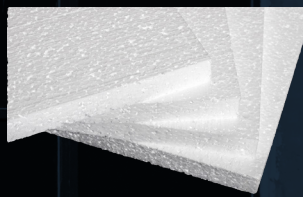




EXPANDED POLYSTYRENE (EPS)

APPLICATIONS

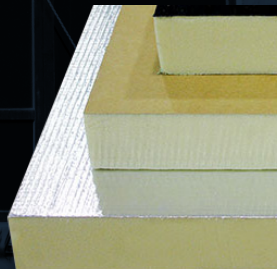
- Sheet/board/slab insulation
- Blocks, void foam
- Pipe insulation
- Decorative patterns



PHENOLIC FOAM, PIR & PUR

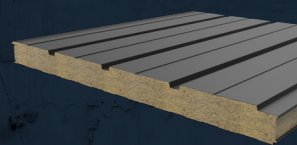
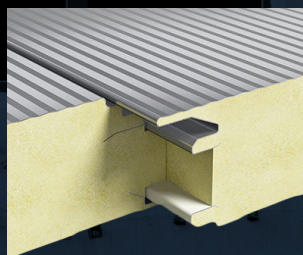
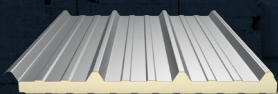
APPLICATIONS

- Roof & wall insulation
- Soffit insulation, cavity wall insulation & under deck insulation
- Flooring insulation
- Exterior insulation



INSULATED PUR, PIR & MINERAL WOOL ROOF & WALL SANDWICH PANELS

Produced using rigid PUR, PIR or mineral wool core with external and internal sheets in steel or aluminum of varying thickness, coatings and colors.

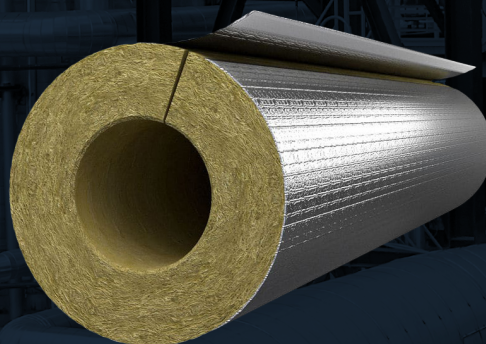
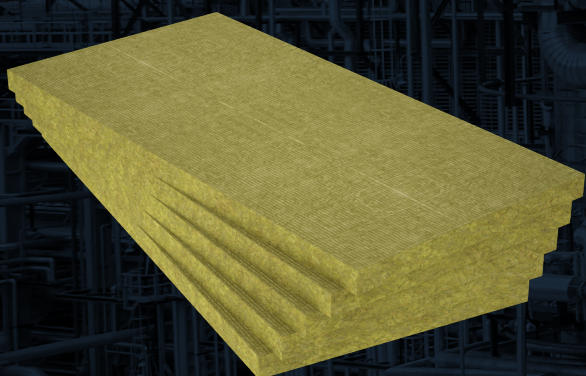


THERMAL, ACOUSTIC & FIREPROOF INSULATION SOLUTIONS

TO VERY HIGH TEMPERATURE INDUSTRIAL APPLICATION

STONE WOOL

Excellent thermal and acoustic insulation that reduces heat loss, improving fuel savings. It is also highly resilient to deformation, light in weight, strong, resilient and easy to handle/cut to suit intricate shapes. Stone wool is corrosion-free with a high compressive strength and highly durable, able to support a maximum service temperature of up to 800 °C.



APPLICATIONS

- Oil refineries
- Chemical industry
- Food processing
- Wood & paper industries
- Marine/industrial boilers
- Heat exchangers, chimneys & stacks
- Kitchen ducts, ovens & furnaces



CALCIUM SILICATE

Calcium silicate high temperature block and pipe insulation is manufactured using an industry preferred filter press method, which provides accurate dimensional tolerances and superior compressive and flexural strength. These attributes facilitate installation and provide exceptional resistance to mechanical abuse.

APPLICATION

Calcium silicate insulation is recommended for use on equipment and pipes with operating temperatures up to 1200°F (650°C). It is ideally suited for industrial use in areas such as the petrochemical and power generating industries, where energy conservation, process control, personal protection and fire protection are prerequisites.

ADVANTAGES

- Asbestos-free
- Superior strength
- Anti-corrosion properties
- Non-combustibility
- Stability
- Acoustic properties



CERAMIC FIBER BLANKET

Ceramic fiber blanket is a type of blanket with high tensile strength, made by ceramic fiber through a double needled-pouching process. The fiber blanket does not contain any bonding agent and with the characteristics of stable chemical performance is resistance to most chemical erosion. The physical properties do not alter when met with oil, water or steam.

ADVANTAGES

- High tensile strength
- Lightweight
- Low shrinkage
- Low thermal conductivity
- Good sound absorption
- Resistance to thermal shock
- Classification Temperature 1260 °C



PERLITE

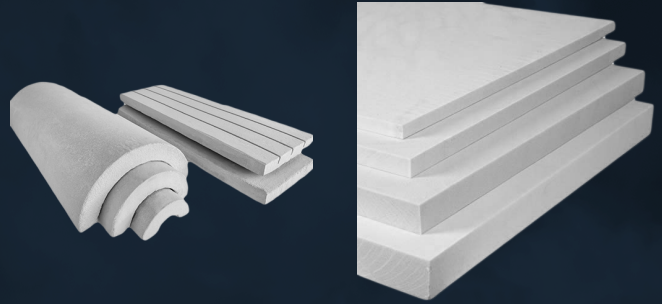
Perlite boasts excellent water repellent properties, solving technical problems effectively which can otherwise be complex issues with various types of insulation including heat insulation and waterproof insulation. This results in cost saving on construction and maintenance.

APPLICATION

Widely used in pipeline system equipment for power generation and factory and petrochemical works, in addition to heat supply pipeline systems.

ADVANTAGES

- High efficiency
- Water repellent
- Asbestos-free
- Superior strength
- Non-corrosive
- Lightweight
- Non-combustible
- Radiation resistance



AEROGEL

Aerogel insulation is more effective than conventional insulation materials, while being industrially durable and space-saving with easy-to-use shaping over a high temperature range, making it the most efficient industrial insulation in the market. It can be produced in two different components by compounding silica aerogel with fiberglass, silica aerogel with ceramic fiber and silica aerogel with carbon fiber.

ADVANTAGES

- Very low thermal conductivity
- Long service life (15-20 years)
- Very high fire retardation (Gr. A1)
- Very high hydrophobicity ($\geq 99\%$)
- Environmentally friendly & non-toxic
- Easy to cut & install



APPLICATIONS

- Boiler/smelting furnace
- Steam turbine insulation
- Ducts & flue insulation
- Tank insulation
- Distillation tower insulation
- Flow pipe insulation
- Vessel & valve insulation

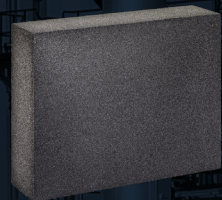
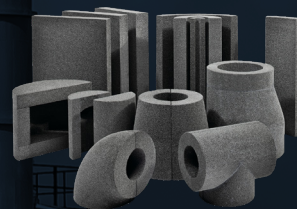
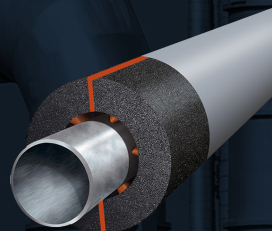
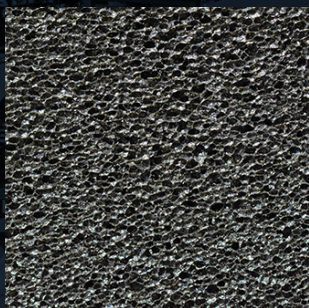
CRYOGENIC & LOW TEMPERATURE INSULATION

FOR INDUSTRIAL & MULTI USAGE APPLICATIONS

It takes a special kind of material to control the freezing temperatures of minus 163°C necessary to handle, store and supply liquefied natural gas (LNG) from gas plants and pipelines to storage and transportation tanks.

CELLULAR GLASS INSULATION

Cellular glass is a porous glass foam material. It is a lightweight, high-strength building material with excellent performance in thermal & acoustic insulation that is both moisture-proof and fireproof, while supplying cellular glass in slabs, blocks, pipe sections and curved or conical forms.



ADVANTAGES

- ❑ Flame resistant/moisture resistant/corrosion resistant Environmentally friendly & free of CFC's & HCFC's
- ❑ Effective in cold temperatures ranging from -450°F – 900°F
- ❑ Excellent sound absorption properties
- ❑ Highly durable

APPLICATIONS

- ❑ LNG & ethylene plants
- ❑ Cryogenic storage
- ❑ CO2 plants
- ❑ Gas liquefaction plants
- ❑ Piping
- ❑ Vessels
- ❑ Tanks Equipment
- ❑ Spheres
- ❑ Direct underground pipe
- ❑ Chemical processing system
- ❑ Cold store
- ❑ Standing seam roofs
- ❑ Green & water roofs
- ❑ Car park decks & helicopter landing pads

SOILLESS AGRICULTURE AGRO



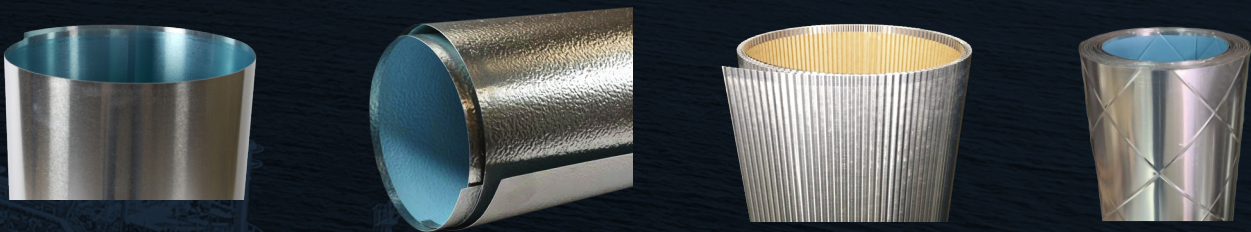
STONE WOOL FOR AGRICULTURE

Stone wool solid have a solid, rigid nature with optimum capacity of clearance volume and water-holding, adjustable via fiber thickness and density. The binding-agent (made from organic and environmentally friendly materials) enables the rapid and strong growing of roots without exposing any chemical disinfection, thanks to elimination of insect and pest reproduction.



JACKETING & CLADDING

Jacketing and cladding is the protective outer surface for mechanical insulation systems, including duct, pipes, vessels and equipment. It protects the insulation and underlying pipe/vessel from physical damage, UV exposure, corrosive atmospheres and water. It is available in smooth, stucco embossed, chequered (cross-crimped) and corrugated finishes



MOISTURE BARRIER

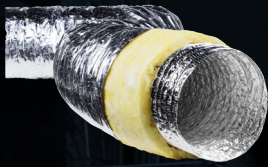
Moisture barrier is a coating applied on the metal to prevent corrosion of both the metal itself and the underlying pipe. The barrier has a very important role in isolating the metal from other insulation layers and shielding the underside of the metal from moisture contact. Used in all hot and cold applications. The two most common moisture barriers used are Polykraft and Polysurlyn barriers.

AVAILABLE TYPES OF JACKETING & CLADDING

- Aluminum with or without moisture barrier (alloy 1100, 1050/60, 3105, 3003, 5005, 6061)
- Stainless steel grade 304 and 316 (other grades available upon request)
- Aluminized steel (type 1 and 2)
- Alu Zinc
- Galvanized steel

All the above can be supplied in sheet, coil or roll form.

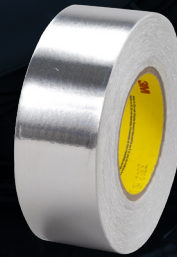
COMPATIBLE PRODUCTS



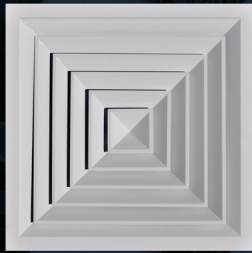
Insulated flexible duct



Flexible duct connectors



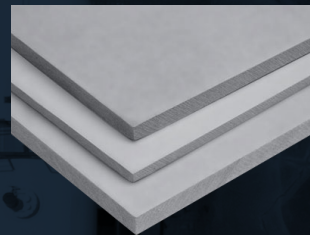
Aluminum, plain & reinforced tape



Diffusers



Louvers



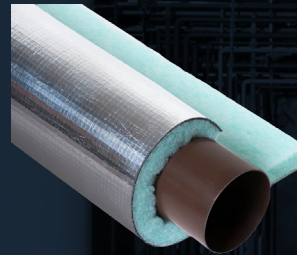
Fiber cement boards



Adhesive, coating & sealants



Cork sheet



Acoustic pipe proofing



**WE ROLL
WITH THE HEAT**



حديد القطامي
QATAMI STEEL

+965 24735460 / 24712213

+965 24735461

info@qatamisteel.com

insulation@qatamisteel.com

P.O. BOX 23090 Safat,
13091 Kuwait

qatamisteel.com