Asia Rock Wool

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Introduction

Asia Mineral Wool is one of the Iran's largest integrated insulation companies headquartered in Villashahr , Najafabad conduct business with more than 100 companies engaged in every aspect of the residential and industrial insulation, including production, manufacturing, marketing and transportation.We are also investing in new inventions and advanced technologies. Asia Mineral Wool is the manufacturer of rock wool, and slag wool insulation products. Its role is to promote energy efficiency and environmental preservation by using rock wool, and slag wool insulation and to encourage the safe production and use of these materials.We trace our earliest roots to year 2005 , which led to the formation of the Asia Mineral Wool Company and in 2007, nearly we doubled our production line to meet the demand of market. To address these challenges, Asia Rock & Slag Wool has developed and refined its production concept to offer the ultimate combination of solutions to meet the demands of modern living.

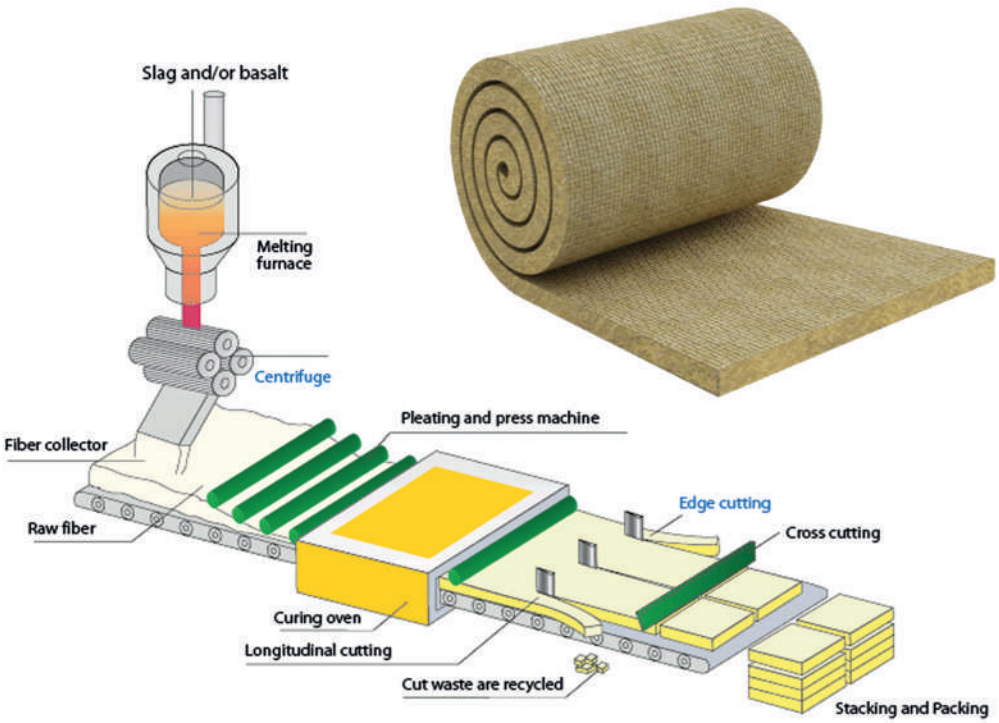
What is Rock Wool?

Rock Wool is a man-made mineral fiber. The vast majority of Mineral Wool used in the world is used for insulation purposes much like fiberglass. However, the properties of mineral wool can be substantially changed by adjusting the mineral content. Mineral wool is manufactured by melting basaltic rock and spinning the melt into fibers. Immediately following spinning, a binder is added to the fibers and they are compressed and cured into large slabs. By adjusting the amount of pressure, the density of the media is adjusted. The large slabs can be cut into smaller slabs and propagation blocks for easy handling. The spun fibers are also formed into a granulated (flocked) product which can be handled in a manner similar to bales of peat. All mineral wools are not the same. The best are produced from pure basaltic rock (diabase). Asia Rock & Slag Wool are produced from diabase have a mineral balance that is inert and nonreactive. A few Rockwools are produced from slag left over from smelting operations. These minerals contain a high proportion of metals and may be somewhat reactive with the nutrient solution. High quality mineral wool should have a uniform fiber diameter, even binder distribution and a low proportion of shot (mineral pellets that have not been spun into fibers).

Production Process

The production process for stone wool begins with the fusion of volcanic rock at a temperature of 1500° C (2732°F). Volcanic rock and slag are automatically fed from the top of the cupola furnace. The melt runs out of the bottom of the furnace and onto the spinning machine, where the wool is spun. Minor amounts of binder and oil are added, and the wool is collected on a belt conveyor in the spinning chamber. The structure and density of the wool are adjusted before it enters the curing oven. These properties are maintained after the binder has been cured.

The cured wool then proceeds to the cutting saws and packing equipment or is led to off-line equipment for special treatment. The off-gases from the production – furnace, spinning chamber, curing oven – are cleaned in filters and after-burners before they enter the chimney. The waste inevitably created during the production is re-cycled.

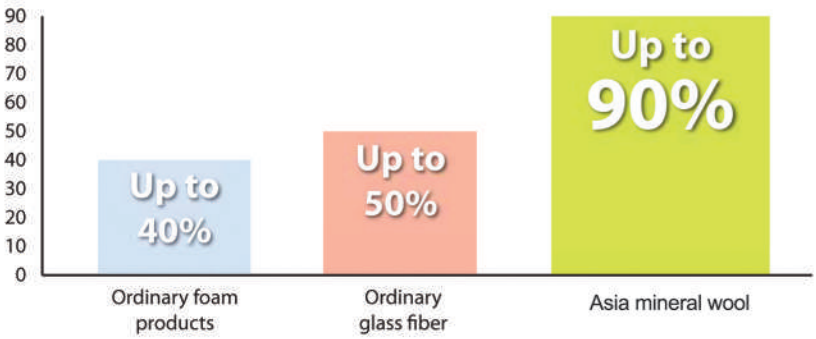


A series of environmental equipment (filters, preheaters, afterburner and other systems of purification and collection) are featured in our production process to help make us environmentally responsible.

Green Insulation

Asia Mineral Wool is made with up to 90% recycled material. As you can see from the graph, Asia Mineral Wool recycled content of up to 90% compares to about 40% for rigid foam products, and 50% for glass fiber insulation. High recycled content is just part of our sustainability story. We do not use any materials that are considered finite, rare or endangered. The recycled material in our mineral wool is a byproduct of the steel industry. It is something that historically ends up in landfills.

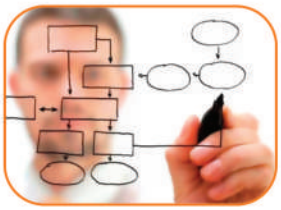
Highest Available Recycled Content in Commercial Insulation



Finished mineral wool products save far more energy in use than is expended in their manufacture. Also, the ratio of in-use savings to manufacturing emissions of carbon dioxide, the main greenhouse gas, is equally positive. Other greatly reduced air pollutant emissions include SO2, various nitrogen oxides (NOX) and fine particulates.

When mineral wool is assessed under rigorous life cycle analysis, it is found to have lower embodied energy than most non-mineral wool products, especially in applications where low density mineral wool products are used.

Insulation Products

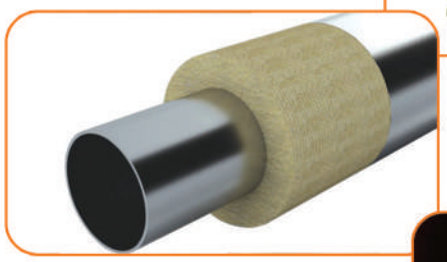


Asia Mineral Wool is a leading manufacturer of Mineral Wool insulation products. For decades we have been the pioneer in perimeter fire containment systems. Asia Mineral Wool also offers industrial, residential, and marine mineral wool products that conserve energy, control sound, and provide fire protection. The main products include:

1- Board Insulation

2- Loose Fiber Insulation

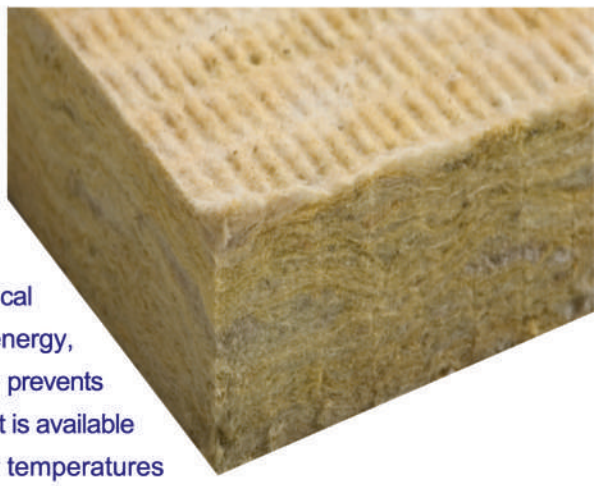
3 - Pipe Insulation



4 - Blanket Insulation

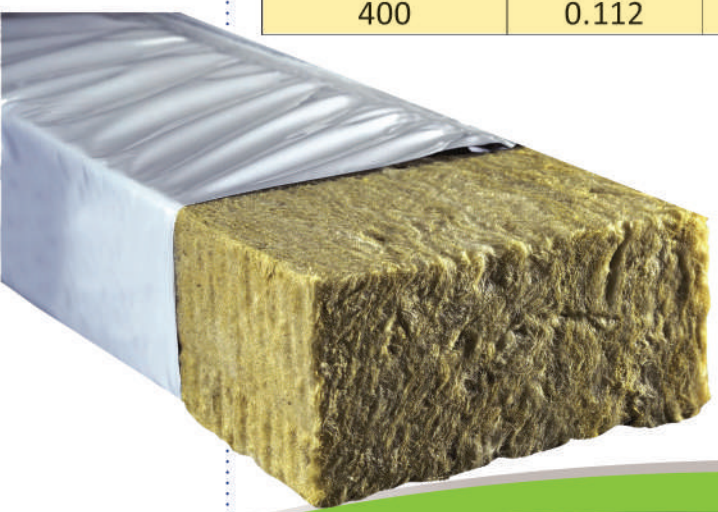
5 - Mattress Insulation

Board Insulation



Industrial Board is an economical, semi-rigid, preformed mineral fiber insulation that offers excellent thermal and acoustical performance in both hot and cold applications. It conserves energy, maintains process temperatures, provides personnel protection, prevents condensations, and reduces noise emission and transmission. It is available in nominal densities from 4 to 12 lb./cu. ft and is suitable for temperatures up to 1200ºF (650ºC). On initial start-up only, heat rise should not exceed 15ºF per minute to allow binder to dissipate without excessive temperature rise.

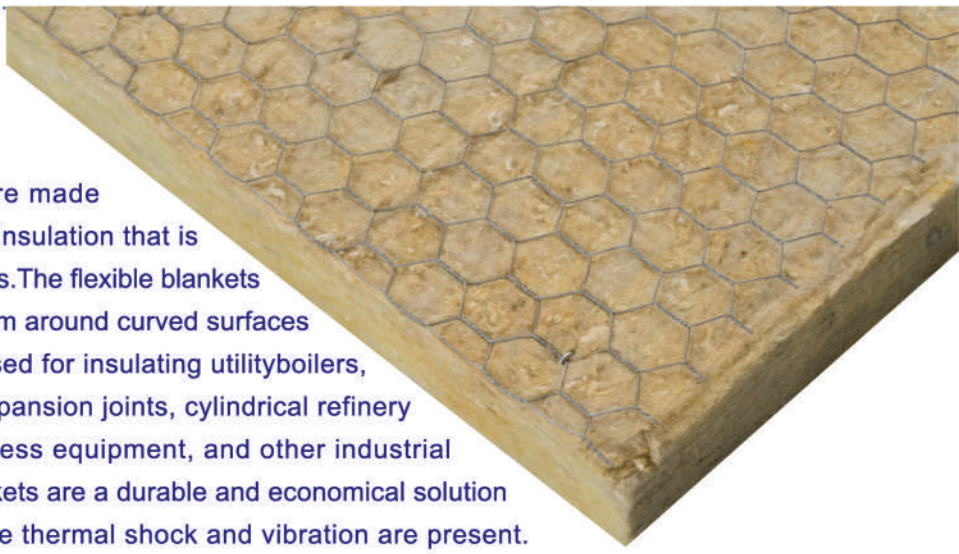
INDUSTRIAL BOARD THERMAL CONDUCTIVITY W/MC				
Temperature (Centigrade)	Density 80 Kg/m^3	Density 100 Kg/m^3	Density 120 Kg/m^3	Density 150 Kg/m^3
50	0.047	0.046	0.045	0.053
100	0.055	0.053	0.050	0.057
150	0.067	0.064	0.060	0.064
200	0.071	0.068	0.065	0.071
300	0.076	0.090	0.082	0.087
400	0.112	0.134	0.107	0.109



Loose Fiber Insulation

Bulk wools offer a choice of granulated wool, packing wool, spray wool, and high-performance wool (HP).
Bulk wools are classified as noncombustible and provide superior fire resistance.
These asbestos-free products adsorbs less than 2% moisture and will not corrode steel or aluminum.

LOOSE WOOL THERMAL CONDUCTIVITY W/MC		
Temperature (Centigrade)	Density 80 Kg/m^3	Density 100 Kg/m^3
50	0.038	0.033
100	0.042	0.044
150	0.055	0.056
200	0.065	0.060
300	0.075	0.076
400	0.118	0.110



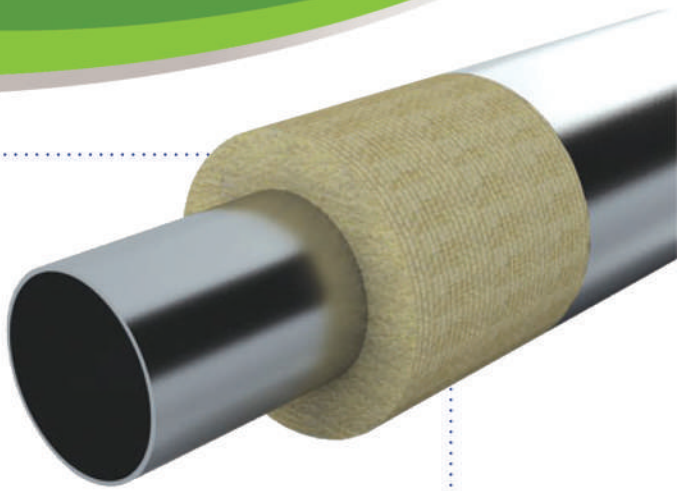
Blanket Insulation

Asia Metal Mesh Blankets are made from preformed mineral wool insulation that is stitched to various metal facings.The flexible blankets are easy to cut, install, and form around curved surfaces or irregular shapes. Widely used for insulating utilityboilers, ducts, precipitators, tanks, expansion joints, cylindrical refinery applications, power and process equipment, and other industrial applications. Metal Mesh blankets are a durable and economical solution for multiple applications where thermal shock and vibration are present.

Metal Mesh Blankets are available with galvanized metal mesh or stainless steel wire mesh stitched to the blanket for exceptional durability. Wire mesh can be applied to one or both sides of the blanket.

BLANKET INSULATION THERMAL CONDUCTIVITY W/MC				
Temperature (Centigrade)	Density 80 Kg/m^3	Density 100 Kg/m^3	Density 120 Kg/m^3	Density 150 Kg/m^3
50	0.039	0.044	0.042	0.050
100	0.040	0.050	0.048	0.056
150	0.041	0.058	0.054	0.061
200	0.045	0.074	0.061	0.067
300	0.097	0.084	0.077	0.085
400	0.118	0.110	0.094	0.109

Pipe Insulation



Mineral wool pipe insulation is made from basalt rock and slag. These rigid pipe sections are strong, non-combustible product with a melting point of approximately 2150 F (1117 c), which gives it excellent fire resistance properties.

Mineral wool is a water repellent yet vapor permeable material that is ideal for steam and process pipe systems operating at very high temperatures, where energy conservation, personnel protection and fire control are concerns. Good compressive strength, light weight, low dust, non-combustible and good physical properties are benefits of mineral wool pipe Insulation.It is used with or without aluminium foil face according to its using fields.

PIPE INSULATION THERMAL CONDUCTIVITY	
Temperature (Centigrade)	W/MC
50	0.038
100	0.040
150	0.042
200	0.044
300	0.071
400	0.098

Mattress Insulation

Mineral wool mattress has a unique arrange of properties combine high thermal resistance with long-term stability. It is made from molten mineral, pericarp or scum that is spun into a fiber-like structure which creates a combination of properties that no another detachment touchable crapper match. Production and properties describes the technological impact of petrified wool production and the physical characteristics of the mix and theoretical bases of multi regression and dimensionless theory.

Applications

Asia mattressess are used for both hot and cold Insulation to conserve energy, maintain process temperature, provide personnel protection, prevent condensation and reduce noise level. Asia mattressess are used for thermal Insulation of pipe, tanks, equipments, boilers, electrostatic precipitators, flues and ventilation ducts, ovens, furnaces and fire Insulation of fire doors.

Dimensions and Technical Characteristics

Thickness (mm)	Width (mm)	Length (mm)	Density (Kg/m^2)	Product Code
25-75	950-1200	Customer's Order	30-60	**531**
25-75	950-1200		30-60	**532**
25-75	950-1200		30-60	**533**
25-75	950-1200		30-60	**534**
25-75	950-1200		30-60	**535**
25-75	950-1200		30-60	**536**
25-75	950-1200		30-60	**537**
25-75	950-1200		30-60	**538**
25-75	950-1200		30-60	**539**

Insulation & Metal Jacketing

Insulation is used on the exterior surface of pipes, tanks, ducts, vessels, and equipment for the same reason it is used on building envelopes: to reduce the flow of heat. The insulation is part of a complex construction called a mechanical insulation system, which can include one or more layers of insulation, adhesive at the insulation joints, vapor retarder, and metal jacketing. Mechanical insulation systems for hot applications are applied to pipes and equipment that can be hotter than 1,200°F (>649°C).

Mechanical insulation systems for cold applications are applied to pipes and equipment that range from just below ambient temperature to near absolute zero. Very few insulation materials can be left exposed in outdoor applications, so metal jacketing is widely used to protect the insulation system from damage due to UV exposure, physical abuse, and environmental water. Many types of metal have been used as jacketing, including aluminum, stainless steel, aluzinc, aluminized steel, and even galvanized steel. Of these, the most commonly used are aluminum and stainless steel.

Insulation Accessories

Insulation Accessories are a range of fixing accessories tailored to suit many construction applications. These fixings ensure that the material will be installed correctly and maintain its thermal performance for the life of the application. Hence it is for timber or steel frame construction, or under floor applications, and even commercial systems.

With ever-rising energy costs and more stringent building regulations quality thermal insulation is an essential item that needs be factored into the majority of construction projects. At Asia Mineral Wool we have one of the most comprehensive insulation stock ranges in the Iran. If we don't have exactly what you need, we'll get it within 48 hours as our branches have access to all the Iran's leading brands and manufacturers including. This range includes phenolic, polyurethane, rock, acoustic, multi foils, vapour resistant and pipe insulations. Our staff are continually being trained to answer your technical queries and to advise you of changes to legislation so that we can ensure that you are always given the most appropriate product to meet your needs. This expertise will save you time and money.