SAUDI MADE

FM APPROVED

PRODUCT CONFORMITY

ISO 9001

ISO 14001

ISO 45001

BCOMS

Mineral wool insulated panel system for roofs & walls

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About
Mineral Wool

Mineral wool is a premium insulation made from volcanic rock melted at high temperatures and spun into a mat of fine fibers. Mineral wool only burns at temperatures in excess of 1000°C so in effect provides a fire barrier for building envelope.

The mineral wool insulation used in BCOMS sandwich panels is certified by regional and international entities.

Why Use
Mineral Wool

Mineral wool is a high performing material in regards to thermal insulation, acoustic properties and fire protection.

Thermal insulation and energy saving is one of the main concerns of modern civilization for its positive role in conserving the environment and natural resources. Scientific research and studies proved that use of thermal insulation in buildings will dramatically reduce the heat transferred through the walls and roofs. Hence it has a major contribution in saving electrical power and energy needed to cool and heat the buildings.

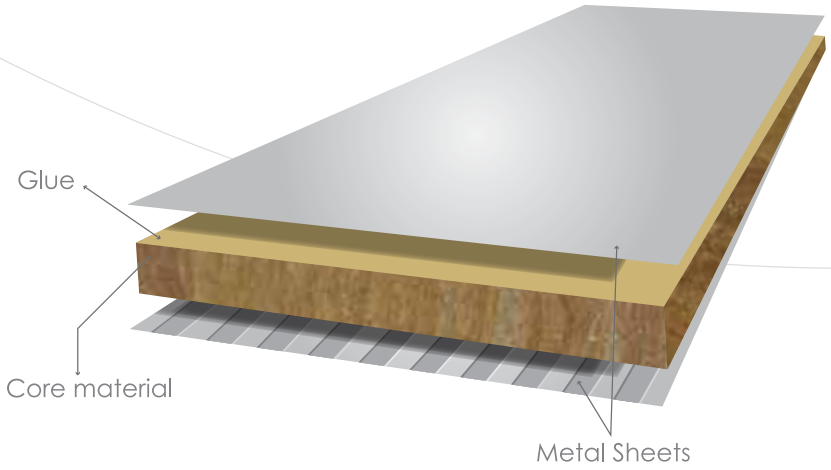
Professional studies proves that the thermal insulation cost of a building will not exceed 3.5% of its budget. However, this amount will be paid back in 4 - 5 years as a result of saving in the electricity bill.

Mineral Wool
Sandwich Panel

Mineral wool sandwich panel adopts fibrous mineral wool as the core material glued to pre painted metal sheets as its surface layers on a state of the art continuous production line. Freshly formed panels are then passed through an enclosed temperature controlled conveyor press for curing before the final panels are ready to cut.

Since the metal sheets and the mineral wool are non-combustible, the mineral wool sandwich panel has excellent fireproof property.

BCOMS mineral wool sandwich panels can be used for roof and wall panels as well as internal partitions. MW panels are widely used for envelope of industrial and commercial buildings in addition to other specialized applications because of their fireproof, heat insulation and acoustic properties.



1 Mineral Wool Panel Characteristics
Thermal Insulation

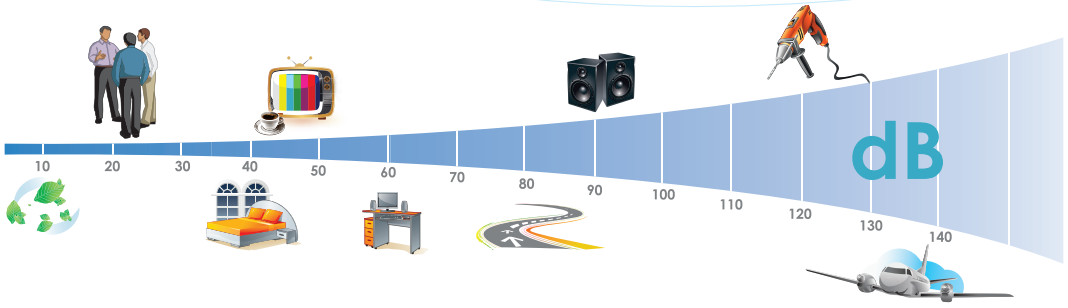
BCOMS Mineral wool panel helps to restrict heat transfer through building envelope thus reducing the demand for space heating and cooling energy. This in turn reduces a host of negative environmental impacts including the emissions of CO_2 and other pollutants such as sulfur dioxide (SO_2) and nitrogen oxides (NO_X).

2 | Mineral Wool Panel Characteristics
Acoustic insulation


A1

Mineral Wool Panel Characteristics
Acoustic insulation

The Fibrus structure of mineral wool makes it an ideal product as a sound absorber and acoustic insulator. Due to its high absorbing and insulating coefficients over a wide sound frequency range, the mineral wool panels provide significant improvement in the Sound Transmission Coefficient (STC) and Noise Reduction Coefficient (NRC).



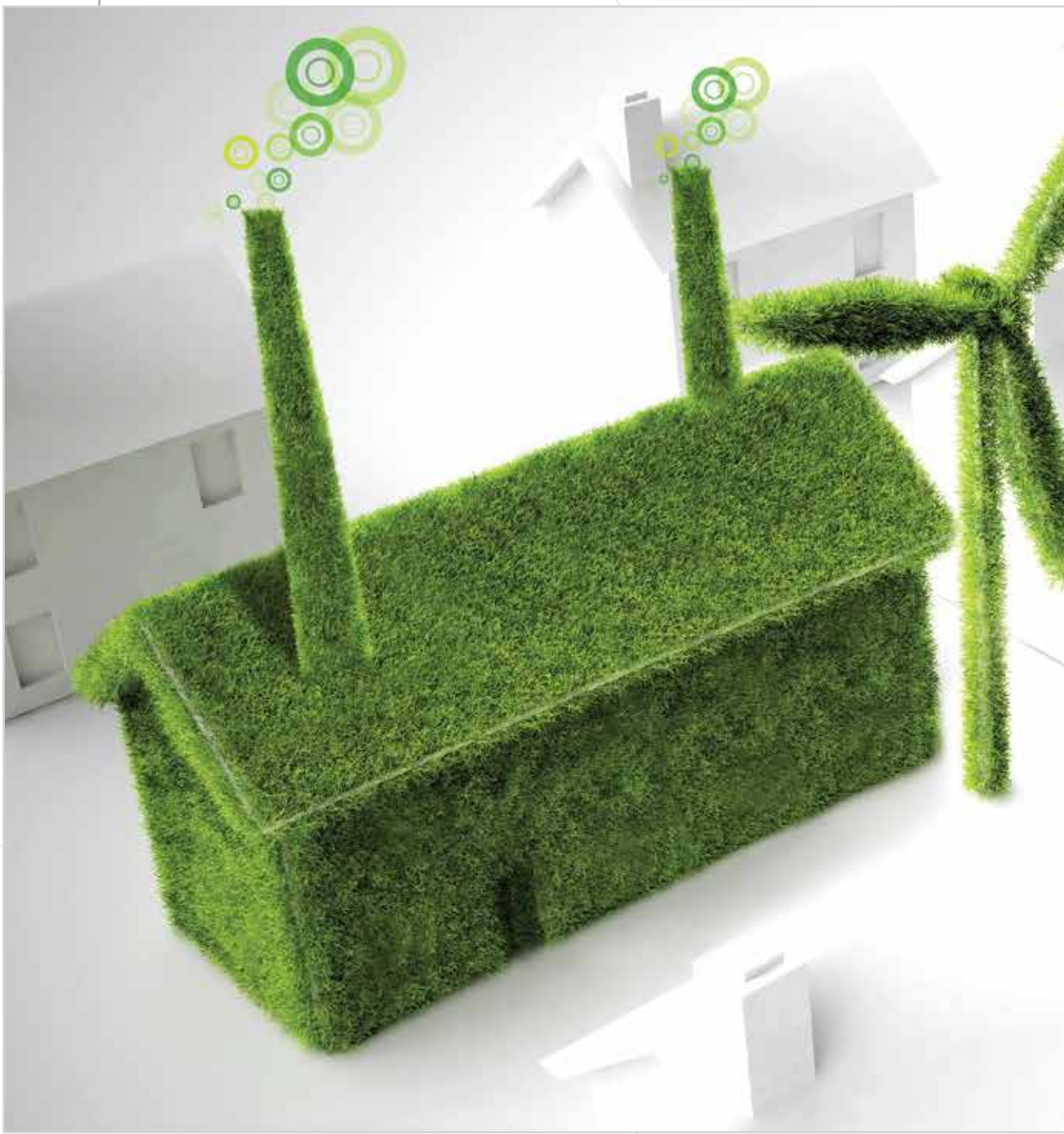
The ability to absorb sound energy means reducing the noise transfer within the same building, across buildings, as well as between buildings and the external environment.

3 Mineral Wool Panel Characteristics
Fire Resistance

The most important characteristic of mineral wool panel is its exceptional fire protection; mineral wool is non-combustible and does not ignite. It has zero flame spread and does not generate toxic smoke and particles. It is therefore internationally specified as Non-Combustible Material according to EN ISO 1182, ASTM E136,and also EURO Class fire Rating of A1 in accordance EN 13501-1

Mineral wool panels restricts the fire to spread from one zone to another; it also acts as a protection for load bearing elements in steel structures and thus prevents the building from collapsing under fire conditions. For the Longest time Possible.

4 Mineral Wool Panel Characteristics
Environment Friendly



Mineral wool insulation is one of the few building materials that saves energy in use and reduces the need for combustion of fossil fuels to provide energy for heating or cooling of buildings. The recycled content and recyclability of the material reduces waste disposal needs and saves valuable resources both now and in future. Mineral wool is 97% recyclable.

Wider Benefits:

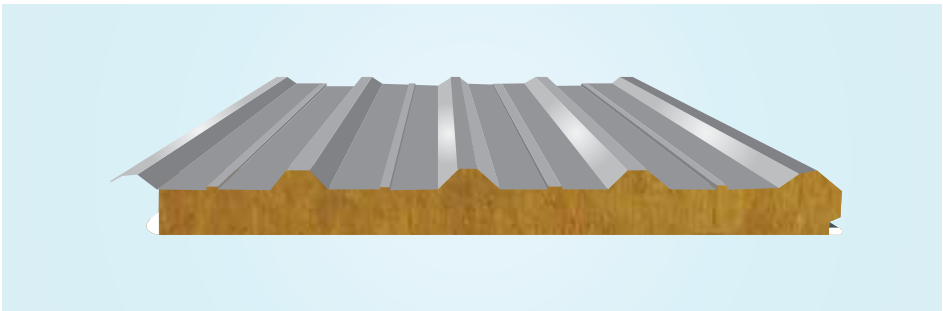
Beside the environmental benefits provided, using mineral wool panels can of course help to reduce energy costs for the buildings and contribute significantly to a comfortable and healthy indoor environment.

Sustainability:

As an environment conscious company, BCOMS promotes the sustainable production and use of insulation and is committed to a continuous process of environmental impact.

Advantages of BCOMS
Mineral Wool Sandwich Panels

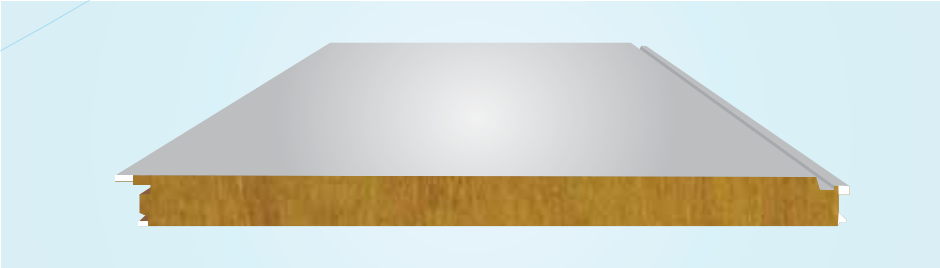
- Outstanding thermal insulation
- Outstanding fire protection
- Excellent acoustic insulation
- High compressive strength
- Water repellent
- Recyclable
- Wide range of thicknesses
- Easy to handle and install
- Cost effective
- Low maintenance



BCOMS Mineral Wool Sandwich Panels
Sustainability Qualities:

- Energy Efficient
- Positive net carbon footprint
- Fire Safe
- Noise Control
- Durable

- Recyclable
- Made of renewable resources
- High resistance to mold and fungi
- No Hazardous flame retarders



Application

Metal surface mineral wool sandwich panel is widely used in various types of buildings based on its excellent treats, such as:

- Industrial Buildings
- Ware Houses / Storages
- Non-residential buildings including Health, Education, Leisure Buildings, Exhibition Centers, Shopping Centers, Multiplexes, Airports, Stadiums and many more.
- Commercial buildings
- Residential Buildings

Available Lengths

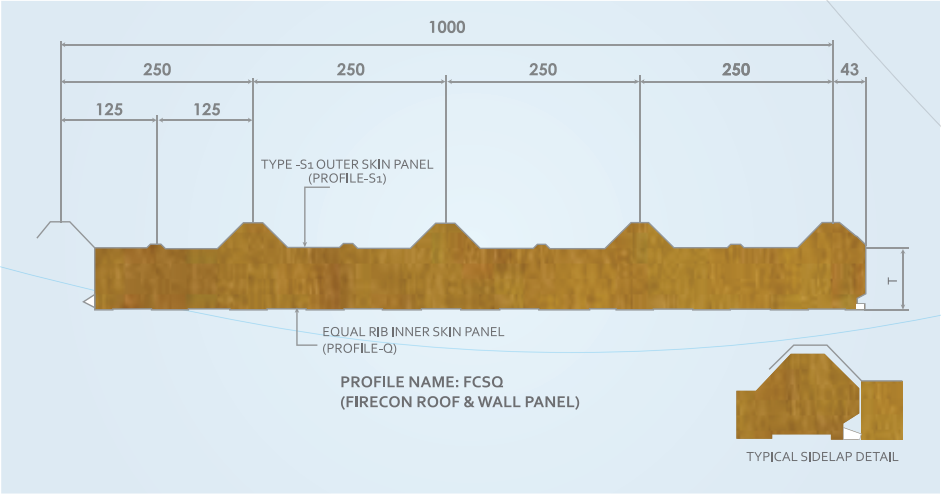
Standard lengths range from 3 to 12 meters. Minimum lengths can start from 1.5 m if panels are cut flush without overlap.

It is recommended to limit the panel length to maximum 10.0 meters for safe handing on site.

FIRECON PANELS

BCOMS Firecon sandwich panels are produced using mineral wool core with external and internal metal sheets in steel or aluminum of varying thickness, coating and colors.

Firecon is a durable sandwich panel, particularly in industrial buildings suitable for roof and wall for all building applications.



Dimensions & Thicknesses

Firecon sandwich panel is available in a single outer and inner profile type in both steel and aluminum; the insulating core can be produced in various thicknesses and thermal insulation values as listed in below table.

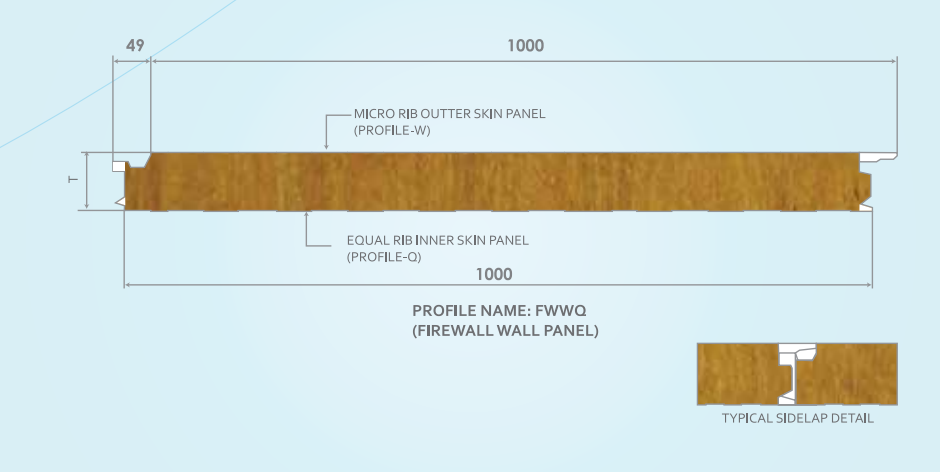
Thermal Properties

Panel ID	Skin Type		Name Code	Core "T"	Thermal Transmission U-Value*
	Outer	Inner		(mm)	($W/m^2.k$)
FC	Type-S	Equal Rib (Q)	FCSQ-50	50	0.618
			FCSQ-60	60	0.523
			FCSQ-75	75	0.425
			FCSQ-80	80	0.4
			FCSQ-100	100	0.324
			FCSQ-120	120	0.272
			FCSQ-150	150	0.219
			FCSQ-170	170	0.194

* The U-Values in the above table is measured at 10°C and thermal conductivity K=0.034 W/m°K at 100 kg/m^3 density.

FIREWALL PANELS

BCOMS Firewall sandwich panels are produced using mineral wool core with external and internal metal sheets in steel or aluminum of varying thickness and are suitable for walls for all building applications, interior partitions.



Dimensions & Thicknesses

Panel ID	Outer Skin Name	Outer Skin ID	Inner Skin Name	Inner Skin ID	Sandwich Panel Name – (Thickness)					Profile	
FW	Micro Rib	W	Equal Rib	Q						Micro Rib W	
					FWWQ-60	FWWQ-75	FWWQ-100	FWWQ-120	FWWQ-150	Equal Rib Q	
	Equal Rib	U	Equal Rib	Q						Equal Rib U	
					FWUQ-60	FWUQ-75	FWUQ-100	FWUQ-120	FWUQ-150	Equal Rib Q	
	Plain	P	Equal Rib	Q						Plain P	
					FWPQ-60	FWPQ-75	FWPQ-100	FWPQ-120	FWPQ-150	Equal Rib Q	
	V-Groove	V	Equal Rib	Q						V - Groove	
					FWVQ-60	FWVQ-75	FWVQ-100	FWVQ-120	FWVQ-150	Equal Rib Q	

Thermal Properties

Panel ID	Panel Thickness	Thermal Transmission U-Value*	Thermal Resistance R-Value
	(mm)	($W/m^2.k$)	m^2K/W
FW	60	0.567	1.764
	75	0.453	2.206
	80	0.425	2.353
	100	0.340	2.941
	120	0.283	3.533
	150	0.227	4.411
	170	0.20	5

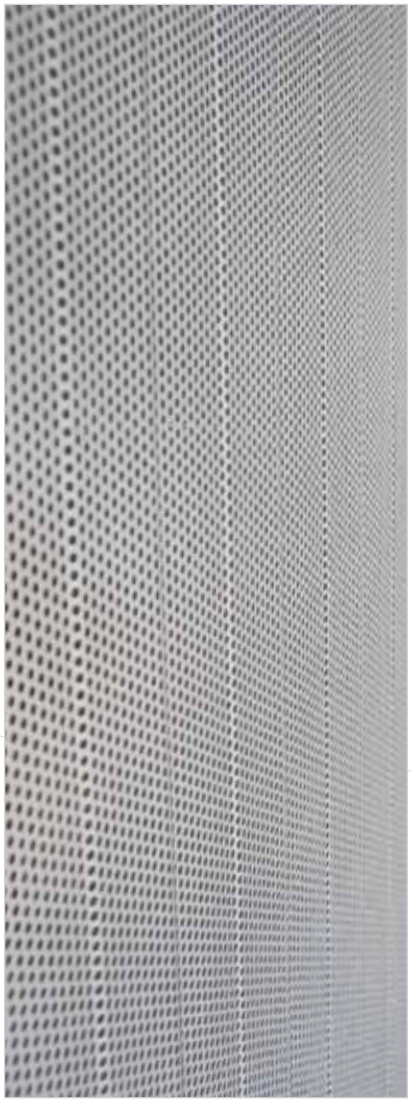
* The U-Values in the above table is measured at 10°C and thermal conductivity K=0.034 W/m°K at 100 kg/m^3 density.

High performance sound absorption for perforated Mineral Wool Panels

BCOMS Mineral Wool Acoustic Panels are engineered to suit specific roofing and Wall Cladding requirements, where the acoustic and sound absorption properties are the main characteristics of the panels in addition to the fire rating and thermal insulation properties.

The combination of optimized density, fiber direction and excellent fit provides a significant improvement in sound absorption when used together with Mineral Wool and on perforated metal sheets

The Perforations can be optimized as per customer requirement on the Sound Transmission Coefficient (STC) values required and (NRC)



Panel Finish

- ## Base Metal coating:
  - Galvalume coated steel confirming to ASTM A 792M. The metal sheets are coated with corrosion resistant Zinc-Aluminum alloy metallic coating through a continuous hot-dip process.
  - Galvanized coated steel confirming to ASTM A653M with metallic coating Z275 (G90 or G60) through a continuous hot-dip process.

- ## Paint Finish
  - Painted Exterior surface coating of 25 microns of
    - Epoxy primer and polyester polymer
    - Premium durability polyvinylidene fluoride well known as PVF2 (equivalent to Kynar 500) liquid coating meeting AAMA 2605-98 standards.
  - Painted interior surface coating of 5 – 7 microns of primer suitable for foam application.
  - BCOMS Extensive supplies base for coils enables different specialized paint systems in variety of colors to be possible based on project Specs.

For any other types of Metal or paint coating, please coutact BCOMS Sales Person

We From Inside

Mineral wool
insulated panel
system for roofs & walls

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BUILDING COMPONENT SOLUTIONS (LLC)

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