



PRODUCT CATALOG

METAL BUILDING ROOFING INSULATION
GLASS WOOL BLANKET



THERMAL
INSULATION



FIRE
PROTECTION



NOISE
REDUCTION



ENVIRONMENTAL
PROTECTION



METAL BUILDING ROOFING INSULATION GLASS WOOL BLANKET PRODUCT DATA SHEET

PRODUCT DESCRIPTION

United insulation glass wool is a high-tech product, mainly made from sand and recycled glass; we have constantly improved its features and performances. Its exceptional thermal properties contribute to save energy and combat climate change. Its porous and elastic structure absorbs noise in the air and offers acoustic correction inside premises. Incombustible by nature, United Insulation glass wool does not fuel fire or propagate flames.

United Insulation® Metal Building Roofing Insulation glass wool blanket is consisted of long, resilient fibers bonded together with a thermosetting resin to form a lightweight, flexible glass wool blanket. The blankets can be supplied with a factory applied foil vapor barrier (FSK, Vinyl, Foil, WMP, and Kraft Facing) according to project designs or customer's requirement.



FEATURES AND BENEFITS

- Good thermal insulation performance under different temperature conditions.
- Non-combustible and no harmful gases.
- Good vapor barrier property in humid conditions.
- Low aging rate and good maintainability.
- Small coefficient of linear expansion.



Thermal
Insulation



Keep
Warm



Fireproof



Waterproof



Sound
Absorption



Green



Energy
Saving



Health And
Safety

APPLICATION

Metal Building Insulation glass wool blanket is designed for use under any roof system supported on purlins with either metal or fibrous claddings, to provide thermal control within the building. The blanket also be used as additional insulation to fill voids in walls and roofs of metal buildings.



AVAILABLE FORMS

Flexible Blanket and Roll

AVAILABLE SIZE

Product Code	Density (kgs/m3)	Thickness (mm)	Width (mm)	Conductivity (W/m · K)	R-Value (m ² · K/W)
UET MBI 12 50	12	50	1200	0.043	1.2
UET MBI 12 75	12	75	1200	0.043	1.7
UET MBI 12 100	12	100	1200	0.043	2.3
UET MBI 12 150	12	150	1200	0.043	3.5
UET MBI 12175	12	175	1200	0.043	4.1
UET MBI 16 50	16	50	1200	0.039	1.3
UET MBI 16 75	16	75	1200	0.039	1.9
UET MBI 16 100	16	100	1200	0.039	2.6
UET MBI 16 150	16	150	1200	0.039	3.8
UET MBI 16 175	16	175	1200	0.039	4.5
UET MBI 24 50	24	50	1200	0.033	1.5
UET MBI 24 75	24	75	1200	0.033	2.3
UET MBI 24 100	24	100	1200	0.033	3.0
UET MBI 24 150	24	150	1200	0.033	4.5
UET MBI 24 175	24	175	1200	0.033	5.3

Notice: The marked content conforms to the specifications of this purchase.
Conductivity Value tested under temperature in10°C.
Consult your local sales representative for other available sizes and specification.

PHYSICAL PROPERTIES

Tested Content	Tested Method	Tested Value
Density	ASTM C167	10-24kgs/m3
Coefficient of Heat Conductivity	ASTM C177	0.033-0.043W/m-K
Thermal Resistance	ASTM C518	1.50 m ² ·K/W
Average NRC	EN ISO 354	1.00
Maximum Service Temperature	ASTM C411	343°C
Corrosion Resistance	ASTM C665	No Chemical Reaction
Mold Resistance	ASTM C1338	Mildew proof
Moisture Absorption	ASTM C1104	Less 3% by weight
Non-Combustibility	ASTM E84	Flame Spread Index: 25; Smoke Developed Index: 50

AVAILABLE FACINGS

Unfaced, or faced with FSK, Vinyl, Foil, WMP, and Kraft Facing are available according to project design.

FACING INTRODUCTION

Facing Code		FSK-60A	WMP	WMP-VR	WMP-38	Kraft paper
Appearance		Sliver	White	White	White	Brown
Structure	layers	4 layers composite	4 layers composite	4 layers composite	5 layers composite	2 layers composite
Construction		Aluminum Foil Adhesive layer 3-way glass fiber Kraft paper	Polypropylene Adhesive layer 3-way glass fiber Kraft paper	Polypropylene Adhesive layer-FR 3-way glass fiber Kraft paper	Polypropylene Metalized Foil Adhesive layer-FR 3-way glass fiber Kraft paper	Polyethylene 85g Kraft paper
Item	Test Method					
GSM	Weighting	90g	85g	85g	125g	90g
Steam Permeability	ASTM E96 A		5.1ng/N.s	5.1ng/N.s	1.51ng/N.s	4.5ng/N.s
Bursting Strength	ASTM D774	3.2kg/cm ²	3.0kg/cm ²	3.0kg/cm ²	5.6kg/cm ²	4.2kg/cm ²
Tensile Strength	ASTM C1136	4.5KN/m 3.3KN/m	5.5KN/m 4.8KN/m	5.5KN/m 4.8KN/m	10.5KN/m 9.6KN/m	7.5KN/m 7.5KN/m
Thickness		210micron	203micron	203micron	254micron	210micron
Catalysis	30days 49°C Relative Humidity	No Corrosion No Delamination	No Corrosion No Delamination	No Corrosion No Delamination	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	-40°C 4hours	No Delamination	No Delamination	No Delamination	No Delamination	No Delamination
High Temperature Resistance	116°C 6hours	No Delamination	No Delamination	No Delamination	No Delamination	No Delamination
Mildew Resistance	ASTM C665	No Growth	No Growth	No Growth	No Growth	No Growth
Water Resistance	23°C 24hours	No Delamination	No Delamination	No Delamination	No Delamination	No Delamination
Luminous Reflectance	ASTN C523	Reflect	85% Reflect	85% Reflect	85% Reflect	25% Reflect
Fire Resistance	ASTM E84	One side fire resistant	Non-fire resistant	Fire Resistant Flame Propagation 25 Smoke Diffusion 50	Fire Resistant Flame Propagation 25 Smoke Diffusion 50	

QUALITY MANAGEMENT AND SPECIFICATION COMPLIANCE

ISO 9001: 2008, ISO 14001:2004
EN ISO 354, EN12667, ASTM C653, ASTM C665
With CE Certificate according to standard EN 13162:2008

FIRE PERFORMANCE

Classified as Euro class A1 to STN EN 13501-1: 2007

AUTHENTICATION CERTIFICATE

ISO 45001:2008; ISO 14001:2019; ISO 9001:2015; CE; SGS; USGBC;
UL Green Guard; Alibaba

STORAGE AND TRANSPORT

Store insulation indoors. Store product under cover and in dry conditions. Handle with care, Products will be damaged if subject to sharp or heavy impact.

LIFE EXPECTANCY

Design working life expectancy: 25 years

WARRANTY

Furnish 10-year manufacturer warranty: 10 years

PACKAGING

Glass wool roll is packed by vacuumed packing. Inner packing is PVC bag, Outside packing is woven fabric bag. It will save transportation cost and save storage space.

PRODUCT INSTALLATION



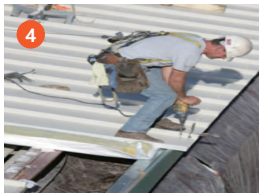
The facing toward to indoor side, vertical to purline, lay the glass wool blanket, reserved about 20cm blanket in one of roof side, use special clamp or double adhesive fixed it in purline most outer side.



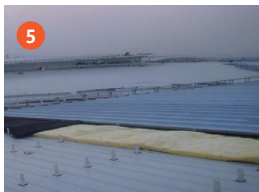
Cut off the glass wool wherein exceed 20cm blanket in one of roof side, use special clamp or double adhesive fixed it in purline most outer side.



Install roof color steel board, take off the special clamp in eaves two sides, seal it with the reserved 20cm facing.



Between two blankets, jointing together with stapler binding in facing long edge side.



Pay attention to keep tensioning of the glass wool, align, joint spaces between blankets, when lengthways needs to jointing, the joiner should fix up in purline.

*According to project requirement, to avoid to appearing cold bridge, may consider to fill up some hard heat insulation material in purline.

PRODUCTION

Raw materials: Glass wool belongs to a category of glass fiber, which is a man-made inorganic fiber. The main raw materials are quartz sand, limestone, dolomite and other natural ores, and some chemical raw materials such as soda ash and borax are used to melt into glass. In the melted state, the flocculent thin fibers are blown by the external force, and the fibers and the fibers are three-dimensionally intersected and entangled with each other, showing many small gaps. Such gaps can be regarded as pores. Therefore, glass wool can be regarded as a porous material with good thermal insulation and sound absorption properties.



PRODUCTION PROCESS



1.Melted raw material



2.Fibering



3.Fiber collecting



4.Hot curing



5.Cutting

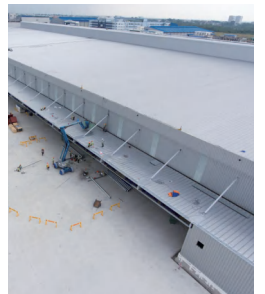


6.Packaging

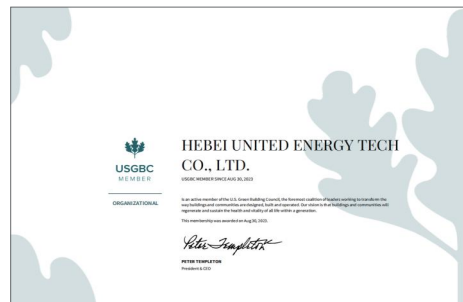
PRODUCT PACKAGING AND PACKING



CONSTRUCTION CASES



CERTIFICATE



MATTERS NEED ATTENTION

- **Respiratory Protection:**An N95 Particulate Respirator such as 3M's 8210 or equivalent is recommended, when installing loosefill, working in any poorly ventilated space or dusty environment and when using power tools.(3M Model 9900 is recommended in high humidity environments.) For exposures exceeding 10 fibers per cubic centimetre (f/cc) a NIOSH approved half-mask respirator with high efficiency particulate air (HEPA) filter cartridge should be used.
- **Skin Protection:**Normal work clothing,long sleeve shirts and long pants is recommended. Use leather or cotton gloves.
- **Eyes/Face Protection:**Wear safety goggles or safety glasses with side shields to help keep dust and fibers out of the eyes.

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