Reference List

Swarovski (Qingdao) Plant
Bosch (Shanghai) Plant
Bosch (Suzhou) Plant
China Pavillicon Shanghai 2010 Expo
Australia Pavillian
Hong Kong Internotional Airport
Shanghai Oriental Pearl Radio & Television Tower
Shanghai Pudong International Airport
Agile (Shanghai) Hotel
Shanghai Global Financial Center
AT&S Shanghai Plant
IKEA Shanghai Store
FIAT Engine Plant Building (Chongqing)
Terminal 2, Hongqiao Airport
Dubai Subway Station
Unicharm (Shanghai) Plant Building
Shanghai Peace Hotel
Shanghai Oriental Sports Center

Tianjin Poly Metropolis
Project 603 Workshop Building of XAC
Fujian Xiamen Jinqiao Cigarettes Factory
Shanghai Pudong Hospital
Hefei Youth Chuangye Building
Shanghai World Expo Performing Arts Center
World Financial Center
Shanghai Jinmao Tower
Shanghai Oriental Pearl TV Tower
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上海新型建材岩棉有限公司
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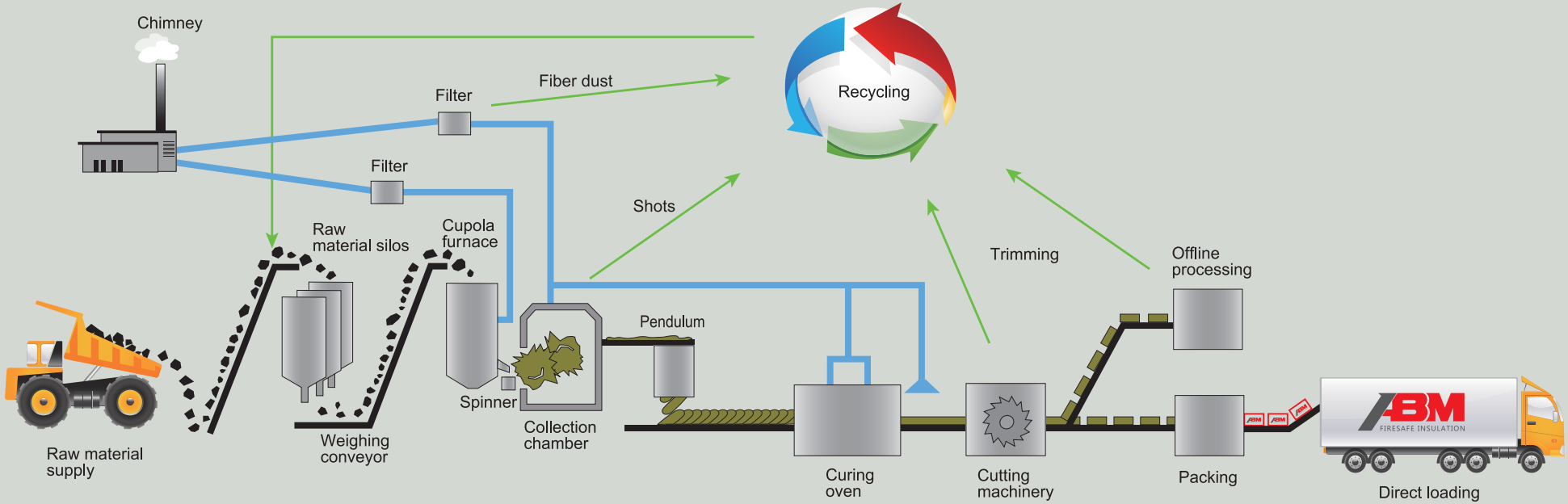
ABM
FIRESAFE INSULATION

Building Insulation

上海新型建材岩棉有限公司
SHANGHAI ABM ROCK WOOL CO., LTD.

Production Process



Product Properties

Fire Control

ABM rock wool is made of natural rock, and therefore is non-combustible material with melting point above 1000℃ , retards the fire spreading; When setting on fire, ABM rock wool doesn't generate any poisonous gas or flaming droplets; The excellent resistance to high temperature and low thermal conductivity at high temperature can make much more time to save lives and reduce property loss.

Thermal Insulation

Due to the thin and long fiber (fiber average diameter 5μm, better than national standard's 7μm requirement), and low shot content (shot content is about 5%, much better than national standard's 10% requirement), ABM rock wool has low thermal conductivity and therefore excellent thermal insulation performance.

Durability

Fiber of ABM rock wool is three dimensional distribution, which increases the product's mechanical strength effectively. FR series, HR series and SP series have high tensile and compression strength, can resist against impact, alternate positive and negative wind load very well. ABM rock wool products are able to maintain stable quality within the whole life cycle of buildings.

Water Repellence

ABM rock wool products can be water repellent, the moisture absorption rate can be lower than 1%, and does not accumulate moisture in itself, can keep the insulated media dry, therefore fungi-proofing, no expansion or deformation after dry out.

Environment-friendly

ABM rock wool does not contain CFC, HCFC or HFC that may damage the ozone layer. Rock wool is asbestos free, and has been removed from list of potentially carcinogenic substances by IARC (International Agency for Research on Cancer, a WHO affiliate). ABM rock wool is neutral or weak alkaline, which means no corrosion will happen.

Permeability

The open porous fiber structure gives ABM rock wool products perfect vapor permeability and moisture proof ability, therefore condensation and mildew are avoided.

Sound Control

ABM rock wool products are made of porous fiber structures. These structures can transform acoustic energy to heat by vibration and friction, thus greatly reducing the sound reflection and transmission, creates a quiet inside environment.

Weather Resistance

ABM rock wool has good resistance against frost, freeze-thaw and UV. Seasonal temperature changes do not bring it expansion or contraction. If not affected by other materials in the same system, the product is able to keep it's properties under extreme climate.

Energy Saving

In its entire life cycle, averagely, ABM rock wool can save more than 100 times energy than it consumes during production, transportation and recycling.

Easy Handling

ABM rock wool products are easy to transport, and also convenient to apply. The products can be cut with a knife easily.

ABM® External Thermal Insulation Board

Product Description

ABM® External Thermal Insulation Board (FRB series) is designed for external thermal insulation composite system and dry-hanging curtain wall thermal insulation system as a fire proof insulation material. With high compressive and tensile strength, excellent hydrophobic and moisture proof property, it can be applied on all kinds of solid wall substrate such as masonry and concrete, and both suitable for new/expansion project and retrofitting project of existing buildings. When a fire breaks out, the product's class-A non-combustibility and good anti-high temperature shrink ability can maintain the stability of the system structure.

Standard Specification

Product Type	FRB 75	FRB 100	FRB 150
Nominal Density, kg/m³	⩾140	⩾140	⩾150
Size(L×W), mm	1200x600		
Thickness, mm	40~120		

Other size or density may be available on request

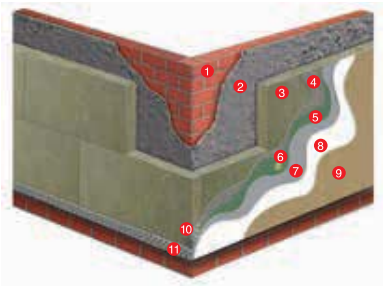
Main Properties and Technical Data

Properties	FRB 75	FRB 100	FRB 150	Unit	Standard
Compressive Strength (10% deformation)	⩾40	⩾50	⩾60	kPa	GB/T 13480
Tensile Strength (perpendicular to surface)	⩾7.5	⩾10	⩾15	kPa	JG 149-2003 Annex D
Thermal Conductivity(25℃)	⩽0.039	⩽0.039	⩽0.039	W/(m•K)	GB/T 10295
Reaction to Fire	Class A	Class A	Class A		GB 8624-1997
Acidity Coefficient	⩾1.8	⩾1.8	⩾1.8		GB/T 5480
Water Repellence	⩾99	⩾99	⩾99	%	GB/T 10299
Water Vapor Absorption	⩽1.0	⩽1.0	⩽1.0	wt %	GB/T 5480
Short-term Water Absorption (partial immersion, 24h)	⩽0.5	⩽0.5	⩽0.5	kg/m²	GB/T 25975-2010 Annex B
Long-term Water Absorption (partial immersion, 28d)	⩽2.0	⩽2.0	⩽2.0	kg/m²	GB/T 25975-2010 Annex B
Noise Reduction Coefficient(NRC)	⩾0.6	⩾0.6	⩾0.6	---	GB/T 18696.1
Dimensional Stability	⩽1.0	⩽1.0	⩽1.0	%	GB/T 8811
Melting Temperature	⩾1000	⩾1000	⩾1000	℃	
Thickness Deviation	±3	±3	±3	mm	GB/T 5480
Squareness	⩽5	⩽5	⩽5	mm/m	GB/T 5480
Flatness	⩽5	⩽5	⩽5	mm	GB/T 25975-2010 Annex A

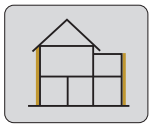
Other properties meet GB/T 25975-2010 and GB/T19686-2005's requirements

Product Application

External Thermal Insulation Composite System with FRB Series

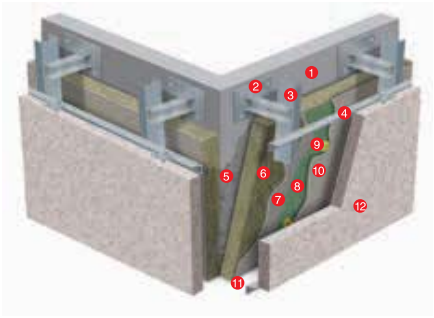


1. Substrate
2. Adhesive Mortar
3. ABM External Thermal Insulation Board (FRB series)
4. Rendering Mortar
5. Monolayer/Double-layer Glass Fiber Mesh
6. Anchors
7. Screeding Coat
8. Generic Uniprimer
9. Silicone Paint Or Decorative Mortar
10. Corner Protection Rail
11. Starter Rail

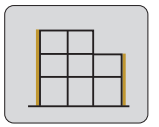


* In order to give full play to rock wool's vapor permeability, impermeable facing materials such as ceramic tile, high elastic paint should be avoided when rock wool external thermal insulation composite system is applied, so the mildew and condensation of the building can be prevented.

Dry-hanging Curtain Wall Thermal Insulation System



1. Substrate
2. Embedded Parts
3. Vertical Keel
4. Horizontal Keel
5. Adhesive Mortar
6. ABM External Thermal Insulation Board (FRB series)
7. Rendering Mortar
8. Glass Fiber Mesh
9. Anchors
10. Screeding Coat
11. Ventilation Layer
12. Stone Cladding



For system applications, see DBJ/CT 107-2011, EN 13500 and ETAG 004

ABM® External Thermal Insulation Lamella

Product Description

ABM® External Thermal Insulation Lamella (FRL series) is designed for external thermal insulation composite system and dry-hanging curtain wall thermal insulation system as a fire proof insulation material, or applied together with other insulation materials whose combustion performance inferior to class-A such as EPS, XPS, PU to improve the fire performance of the whole system. It can also be applied to cold ceiling for fire protecting, thermal insulating and sound absorbing. Suitable for new/expansion project and retrofitting project of existing buildings.

Standard Specification

Product Type	FRL 80	FRL 100	FRL 120
Nominal Density, kg/m³	80	100	120
Size(L×W), mm	1200x150,1200 x165,1200 x200		
Thickness, mm	30~150		

Other size or density may be available on request

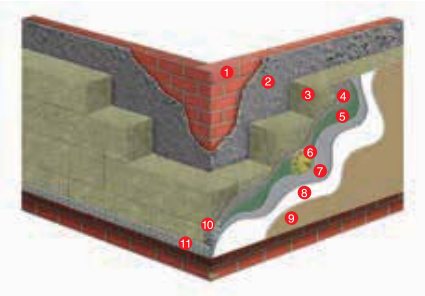
Main Properties and Technical Data

Properties	FRL 80	FRL 100	FRL 120	Unit	Standard
Compressive Strength (10% deformation)	≥40	≥60	≥80	kPa	GB/T 13480
Tensile Strength (perpendicular to surface)	≥80	≥120	≥150	kPa	JG 149-2003 Annex D
Thermal Conductivity(25℃)	≤0.043			W/(m•K)	GB/T 10295
Reaction to Fire	Class A				GB 8624-1997
Acidity Coefficient	≥1.8				GB/T 5480
Water Repellence	≥99			%	GB/T 10299
Water Vapor Absorption	≤1.0			wt %	GB/T 5480
Short-term Water Absorption (partial immersion, 24h)	≤0.5			kg/m²	GB/T 25975-2010 Annex B
Long-term Water Absorption (partial immersion, 28d)	≤2.0			kg/m²	GB/T 25975-2010 Annex B
Noise Reduction Coefficient(NRC)	≥0.6			---	GB/T 18696.1
Dimensional Stability	≤1.0			%	GB/T 8811
Melting Temperature	≥1000			℃	---
Thickness Deviation	±1			mm	GB/T 5480
Squareness	≤5			mm/m	GB/T 5480
Flatness	≤2			mm	GB/T 25975-2010 Annex A

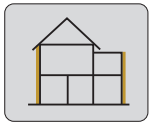
Other properties meet GB/T 25975-2010 and GB/T19686-2005's requirements

Product Application

External Thermal Insulation Composite System with Rock Wool Lamella

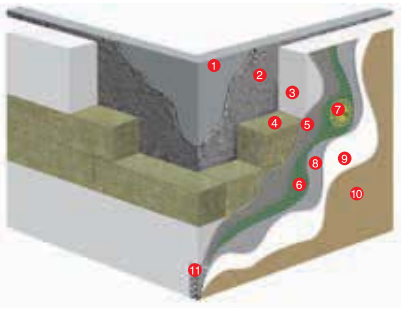


1. Substrate
2. Adhesive Mortar
3. ABM External Thermal Insulation Lamella (FRL series)
4. Rendering Mortar
5. Monolayer/Double-layer Glass Fiber Mesh
6. Anchors
7. Screeding Coat
8. Generic Uniprimer
9. Silicone Paint Or Decorative Mortar
10. Corner Protection Rail
11. Starter Rail

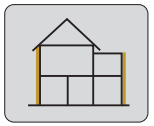


* Rock wool lamella has good flatness, small size, light weight, very high compressive and tensile strength, and is also convenient in construction, all make it perfect for places such as high-rise buildings or balconies where high wind load resistance and impact resistance are required. Anchors with washer diameter no smaller than 140mm are recommended.

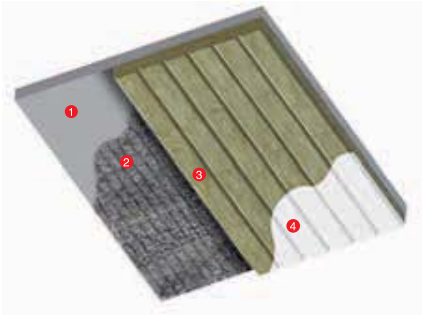
Fireproof Belt for External Thermal Insulation System



1. Substrate
2. Adhesive Mortar
3. Non-class-A Insulation Material
4. ABM External Thermal Insulation Lamella (FRL series)
5. Rendering Mortar
6. Glass Fiber Mesh
7. Anchors
8. Screeding Coat
9. Generic Uniprimer
10. Silicone Paint Or Decorative Mortar
11. Corner Protection Rail



Thermal Insulation System for Cold Ceiling



1. Floor
2. Adhesive Mortar
3. ABM External Thermal Insulation Lamella (FRL series)
4. Sprayed Mortar Or Decorative Paint

* Rock wool lamella's high strength and light weight makes it no necessary of any anchor or mesh to reinforce in this system when full bonding is applied.

ABM® High Strength Roof Insulation Board

Product Description

ABM® High Strength Roof Insulation Board (HR series) is designed specially for all types of flexible waterproof roofing systems.The product has functions include heat preservation, thermal insulation, fire protection and noise reduction.It has high compressive strength and point load, which makes it able to bear the weight of personnel and equipment during the construction and maintenance, and maintain stable thermal, acoustic, fire insulation capacity at the same time. The product is mainly used in step-on roofing, planter roofing and flexible waterproof roofing system in new/expansion project or retrofitting project of existing buildings.

Standard Specification

Product Type	HR 40	HR 60	HR 70
Nominal Density, kg/m³	⩾140	⩾150	⩾180
Thickness, mm	40~100	40~100	50~80
Size(L×W), mm	1200X600		

Other size or density may be available on request

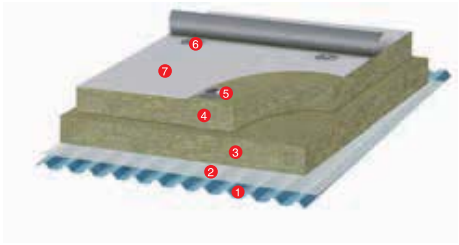
Main Properties and Technical Data

Properties	HR 40	HR 60	HR 70	Unit	Standard
Compressive Strength (10% deformation)	⩾40	⩾60	⩾70	kPa	GB/T 13480 EN 826
Thermal Conductivity(25℃)	⩽0.039	⩽0.039	⩽0.039	W/(m•K)	GB/T 10294 EN 13162
Point Load(5mm compression)	⩾200	⩾500	⩾600	N	EN 12430
Reaction to Fire	Class A	Class A	Class A		GB 8624-1997
Acidity Coefficient	⩾1.8	⩾1.8	⩾1.8		GB/T 5480
Water Repellence	⩾99	⩾99	⩾99	%	GB/T 10299
Water Vapor Absorption	⩽1.0	⩽1.0	⩽1.0	wt %	GB/T 5480 ASTM C1104M
Short-term Water Absorption (partial immersion, 24h)	⩽0.5	⩽0.5	⩽0.5	kg/m²	GB/T 5480 EN 1609
Long-term Water Absorption(complete immersion, 28d)	⩽2.0	⩽2.0	⩽2.0	kg/m²	GB/T 5480 EN 12087
Dimensional Stability	⩽1.0	⩽1.0	⩽1.0	%	GB/T 8811 EN 1604
Melting Temperature	⩾1000	⩾1000	⩾1000	℃	---
Squareness	⩽5	⩽3	⩽3	mm/m	GB/T 5480 EN 824

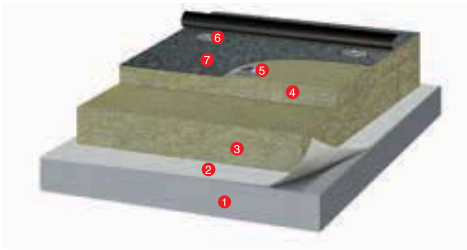
Other properties meet GB/T 19686-2005 or EN 13162's requirements

Product Application

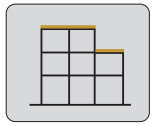
Thermal Insulation for Flexible Waterproof Membrane Roofing System



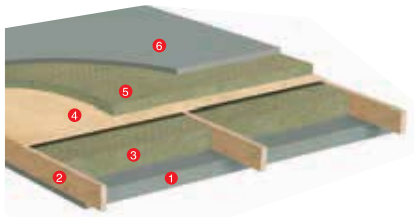
1. Profiled Steel
2. Moisture Barrier
3. ABM High Strength Roof Insulation Board (HR40/HR60/HR70 series)
4. ABM High Strength Roof Insulation Board (HR60/HR70 series)
5. Anchors For Rock Wool Board
6. Anchors For Membrane
7. PVC,TPO, EPDM Waterproof Membrane



1. Concrete Floor
2. Moisture Barrier
3. ABM High Strength Roof Insulation Board (HR40/HR60/HR70 series)
4. ABM High Strength Roof Insulation Board (HR60/HR70 series)
5. Anchors For Rock Wool Board
6. Anchors For Membrane
7. SBS Or APP Waterproof Membrane



Floor Thermal Insulation

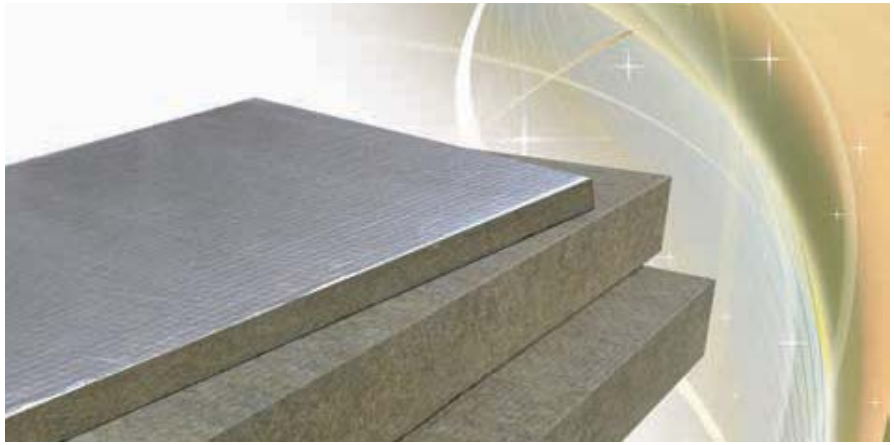


1. Floor
2. Wooden Keel
3. ABM Multi-function Board (MB Low density)
4. OSB Board
5. ABM High Strength Roof Insulation Board (HR40/HR60/HR70 series)
6. Fiber Cement Board

* Solutions recommended for roof thermal insulation:

1. For systems of insulation thickness < 100mm, according to different wind load or weight load, HR60 or HR70 High Strength Roof Insulation Board can be used.
2. For systems of insulation thickness⩾100mm, according to different wind load or weight load, the following two choices can be selected:
   a. Both layer using HR60 or HR70 High Strength Roof Insulation Board.
   b. Lower layer using HR40, while upper layer using HR60 or HR70 High Strength Roof Insulation Board with thickness 50mm and joints staggered. Thus the insulation effect can be improved and the cost can be reduced without affecting the strength of system.

ABM® Curtain Wall Fire Stop Board



Product Description

ABM® Curtain Wall Fire Stop Board is designed specially for all types of curtain walls. The product has higher temperature resistance, higher melting point, longer fire resistance time and smaller high-temperature linear shrinkage.

CFS series can be applied not only as the fire and smoke barrier between curtain wall and floor slab or curtain wall and partition, but also as the barrier between other construction gaps around wall penetration pipes or floor penetration pipes. In order to enhance the smoke barrier capability of CFS series, fire proof aluminum foils are generally attached to both sides of the rock wool.

WFS series are mainly used as the fire barrier and insulation for spandrel in curtain wall system. Its outstanding thermal insulation property can effectively reduce the heat transmission in this section.WFS series can be attached with facing material such as aluminum foil.

Main Properties and Technical Data

Properties	CFS 64	CFS 110	CFS 128	WFS 110	WFS 128	Unit	Standard
Thermal Conductivity(25℃)	≤0.040	≤0.040	≤0.040	≤0.040	≤0.040	W/(m•K)	GB/T 10295 ASTM C518
Reaction to Fire	Class A1 Noncombustible Surface burning characteristics: Smoke Development=0, Flame Spread=0					—-	GB 8624 ASTM E136 ASTM E84
Maximum Service Temperature	750	750	750	750	750	℃	ASTM C411
Linear Shrinkage	<1	<1	<1	<1	<1	%	ASTM C356
Thermal Load Contraction Temperature	700	700	700	700	700	℃	GB/T 11835
Fire Rating*	1	1~2	1~2	1~2	1~2	Hour	ASTM E119 GB/T 9978
Acidity Coefficient	≥2.0	≥2.0	≥2.0	≥2.0	≥2.0	—-	GB/T 5480
Water Repellence	≥99	≥99	≥99	≥99	≥99	%	GB/T 10299
Water Vapor Absorption	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0	%	GB/T 5480 ASTM C1104M
Corrosiveness	Corrosion Free						ASTM C665

* Fire rating depends on the structure of the entire system, including structural integrity and thermal insulation.
Other properties meet GB/T19686-2005andASTM C612-04's requirements.

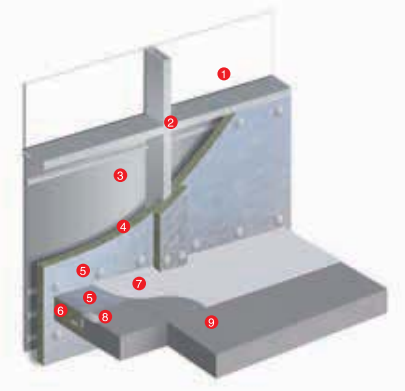
Standard Specification

Product Type	CFS 70	CFS 110	CFS 128	WFS 110	WFS 128
Nominal Density, kg/m³	70	110	128	110	128
Thickness, mm	135	100	100	50 ~ 100	50 ~ 100
Size(L×W), mm	1200x600				

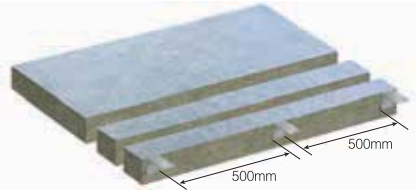
Other size or density may be available on request

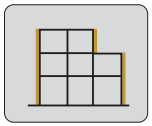
Product Application

Fire & Thermal Insulation for Curtain Wall System



1. Transparent Part of the Curtain Wall
2. Frame
3. Non-transparent Part of the Curtain Wall
4. ABM Curtain Wall Fire Stop Board (WFS series)
5. Facing
6. ABM Curtain Wall Fire Stop Board (CFS series)
7. Fire Resistant Coating
8. "Z" Shape Fixing Bracket
9. Floor

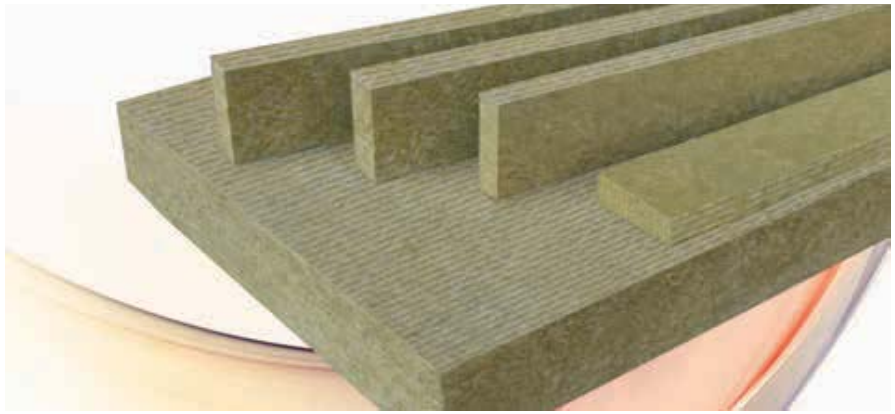




* During on-site installation, the ABM CFS series should be cut lengthwise according to the gap width and should be 10% larger than the gap width, then press the rock wool belt into the gap to make sure the best fire and smoke sealing effect.

"Z" Shape Fixing Bracket should penetrate 75% width of the CFS series at 500mm centers.

ABM® Sandwich Panel Core Insulation



Product Description

ABM® Sandwich Panel Core Insulation (SP series) has very high compression, tensile and shearing strength. The product is widely used at external walls, roofings, inner partitions and ceilings in various types of industrial plants, office buildings, airports, stadiums, pavilions, shops, supermarkets, logistics centers, storage centers and public buildings. SP series include SPS series and SPL series.

SPS series are provided to companies with rock wool cutting equipment. The product is applied after cutting and flipping. SPL series are made by lengthwise cutting of the SPS series. The fiber direction of the SPS series is vertical to panel which makes it fully meet the compression, tensile and shearing requirements under different regions' wind load.

Main Properties and Technical Data

Properties	SP 100	SP 120	SP 150	Unit	Standard
SPL Compressive Strength	60	100	150	kPa	EN 826
SPL Tensile Strength	100	180	250	kPa	EN 1607
Shot content	<7(diameter greater than 0.25mm) <30(diameter greater than 0.063mm)			%	GB/T 11835 ASTM C 1335
SPS Thermal Conductivity(25℃)	≤0.038	≤0.039	≤0.040	W/(m•K)	GB/T 10295 ASTM C518
SPLThermal Conductivity(25℃)	≤0.042	≤0.043	≤0.043	W/(m•K)	GB/T 10295 ASTM C518
Reaction to Fire	Class A			---	GB 8624-1997
Dimensional Stability	≤1.0	≤1.0	≤1.0	%	GB/T 8811 EN 1604
Melting Temperature	≥1000	≥1000	≥1000	℃	---
Water Vapor Absorption	≤5.0	≤5.0	≤5.0	wt %	GB/T 5480.7 ASTM C1104M
Water Vapor Absorption*	≤1.0	≤1.0	≤1.0	wt %	GB/T 5480 ASTM C1104M
Water Repellence*	≥99	≥99	≥99	%	GB/T 10299
Short-term Water Absorption* (partial immersion, 24h)	≤0.5	≤0.5	≤0.5	kg/m²	GB/T 5480 EN 1609
Long-term Water Absorption* (complete immersion, 28d)	≤2.0	≤2.0	≤2.0	kg/m²	GB/T 5480 EN 12087
SPS Thickness Deviation	±2	±2	±2	mm	
SPL Thickness Deviation	±0.5	±0.5	±0.5	mm	GB/T 5480

* Refer to water repellent products only;
Other properties meet GB/T 19686–2005 and EN 13162's requirements

Standard Specification

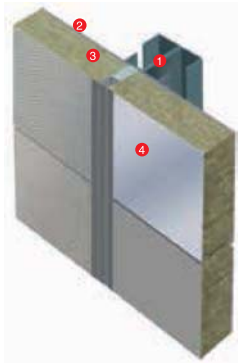
SPS series			
Product Type	SPS 100	SPS 120	SPS 150
Nominal Density, kg/m³	100	120	150
Size(LxW), mm	1200x600, (1800~2400)x930， 1860 x 1200		
Thickness, mm	100		

SPL series			
Product Type	SPL 100	SPL 120	SPL 150
Nominal Density, kg/m³	100	120	150
Thickness, mm	50~200	30~200	25~200
Size(LxW), mm	1200x100		

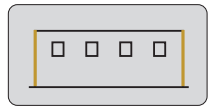
Other size or density may be available on request

Product Application

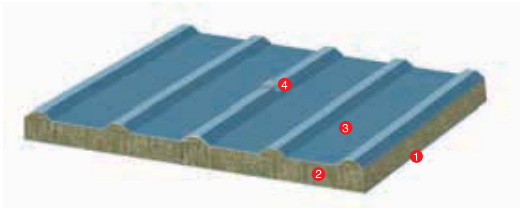
Wall Panel



1. Column
2. Inner Metal Panel
3. ABM Sandwich Panel Core Insulation (SPL series)
4. Outer Metal Panel



Roofing Panel



1. Inner Metal Panel
2. ABM Sandwich Panel Core Insulation (SPL series)
3. Outer Metal Panel
4. Caps

ABM® Multi-function Blanket

Product Description

ABM® Multi-function Blanket (RL series) is mainly applied on steel structure walls to preserve heat, absorb noise and improve the fire performance at the same time.
According to customer requirements, the product can be water repellent, or attached to single-sided or double-sided aluminum foil, glass fiber tissue or aluminium glass cloth.

Main Properties and Technical Data

Properties	RL 60	RL 80	RL 100	Unit	Standard
Thermal Conductivity(25℃)	≤0.040	≤0.038	≤0.038	W/(m•K)	GB/T 10295 ASTM C177 ASTM C518
Maximum Service Temperature	450	650	650	℃	ASTM C411
Thermal Load Contraction Temperature	400	400	400	℃	GB/T 11835
Linear Shrinkage	<2	<2	<2	%	ASTM C356
Water Vapor Absorption	≤5.0	≤5.0	≤5.0	wt %	GB/T 5480.7 ASTM C1104M
Water Vapor Absorption*	≤1.0	≤1.0	≤1.0	wt %	GB/T 5480.7 ASTM C1104M
Water Repellence*	99	99	99	%	GB/T 10299
Combustion Property	Class A1 Noncombustible Surface burning characteristics: Smoke Development≤50, Flame Spread≤25			---	GB 8624 ASTM E136 ASTM E84
Fiber Diameter	5.0	5.0	5.0	μm	GB/T 11835
Organic Content	≤1.0	≤1.0	≤1.0	%	GB/T 11835
Corrosiveness	Corrosion Free				ASTM C665

* Refer to water repellent products only;
Other properties meet GB/T 19686-2005 or ASTM C665's requirements

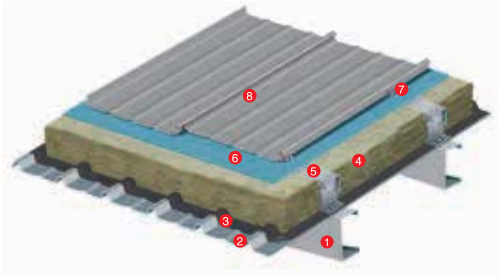
Standard Specification

Product Type	RL 60			RL 80			RL 100	
Nominal Density, kg/m³	60			80			100	
Thickness, mm	50	60	75	50	60	75	40	50
Length, mm	5000	4000	3000	5000	4000	3000	5000	5000
Width, mm	600, 900							

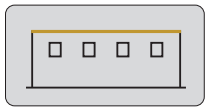
Other size or density may be available on request

Product Application

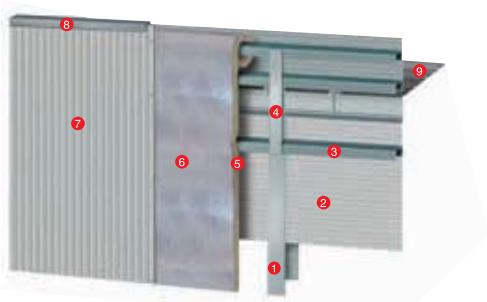
Thermal Insulation System for Light Steel Structure Roofing



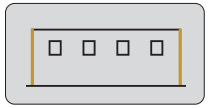
1. Purlin
2. Bottom Profiled Steel Sheet
3. Vapor Barrier Membrane
4. ABM Multi-function Blanket (RL series)
5. Inner Supporter
6. Water-proof And Vapor Permeable Membrane
7. Support Structure
8. Roof Panel



Thermal Insulation System for Light Steel Structure Wall



1. Column
2. Inner Metal Panel
3. Purline
4. Additional Column
5. ABM Multi-function Blanket (RL series)
6. Facing
7. Outer Metal Panel
8. Flashing Board
9. Roof Panel



ABM® Multi-function Board

Product Description

ABM® Multi-function Board (MB series) has a wide range of density and thickness,and has been widely used. The product is mainly applied as a fire, acoustic and thermal insulation in places such as partitions, metal/stone cladding curtain walls, light steel roofs, wall frames, ceilings, fire doors and floors.

According to customer requirements, the product can be water repellent treated, or attached to single-sided or double-sided aluminum foil, glass fiber tissue or aluminium glass cloth.

Main Properties and Technical Data

Properties	MB 40	MB 50	MB 60	MB 80	MB 100	MB 120	MB 150	Unit	Standard
Thermal Conductivity(25℃)	≤0.040	≤0.040	≤0.040	≤0.038	≤0.038	≤0.038	≤0.038	W/(m•K)	GB/T 10295
Maximum Service Temperature	350	350	450	650	650	650	650	℃	ASTM C411
Thermal Load Contraction Temperature	---	---	400	600	600	600	600	℃	GB/T 11835
Water Vapor Absorption	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0	≤5.0	wt %	GB/T 5480.7 ASTM C1104M
Water Vapor Absorption*	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0	wt %	GB/T 5480.7 ASTM C1104M
Water Repellence*	98	98	99	99	99	99	99	%	GB/T 10299
Formaldehyde Emission	<0.5 <20 <5.0**							mg/L μg/m²h μg/m²h	GB 18580-2001 JIS Z8401 JIS Z8401
Combustion Property	Class A1 Noncombustible Surface burning characteristics: Smoke Development≤50, Flame Spread≤25							---	GB 8624 ASTM E136 ASTM E84
Fiber Diameter	5.0	5.0	5.0	5.0	5.0	5.0	5.0	μm	GB/T 11835
Organic Content	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	%	GB/T 11835
Corrosiveness	Corrosion Free								ASTM C665

*Refer to water repellent products only
** Refer to low formaldehyde products only
Other properties meet GB/T 19686-2005 and ASTM C612-04's requirements

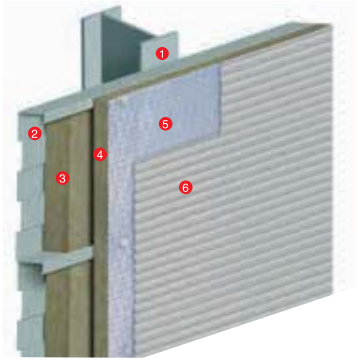
Standard Specification

Product Type	MB 40	MB 50	MB 60	MB 80	MB 100	MB 120	MB 150
Nominal Density, kg/m³	40	50	60	80	100	120	150
Thickness, mm	50~100	40~100	40~150	25~150	25~150	25~120	25~100
Size(L×W), mm	1200x600						

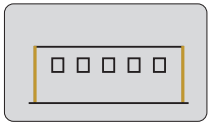
Other size or density may be available on request

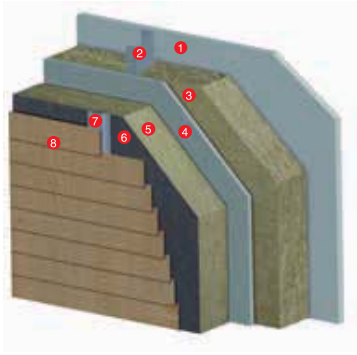
Product Application

Thermal Insulation System for Light Steel Structure

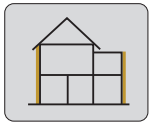


1. Column
2. Inner Metal Panel
3. ABM Multi-function Board (MB low density series)
4. ABM Multi-function Board (MB high density series)
5. Facing
6. Outer Metal Panel

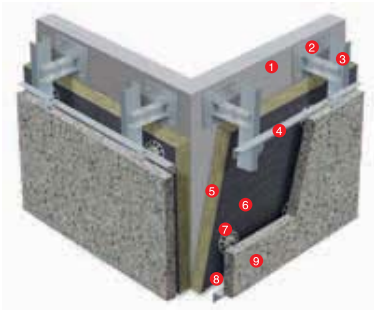




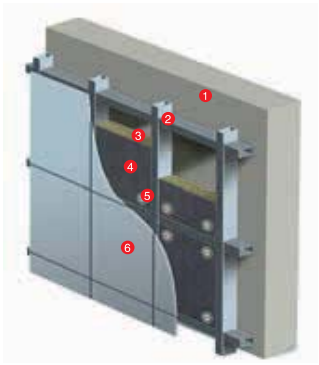
1. Gypsum Board
2. Light Steel Frame
3. ABM Multi-function Board (MB series)
4. Fiber Cement Board
5. ABM Multi-function Board (MB series)
6. Facing
7. Stud
8. Cladding



Thermal Insulation System for Curtain Wall

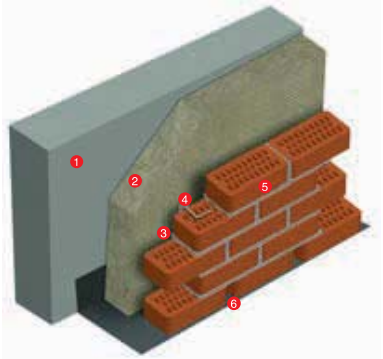


1. Substrate
2. Embedded Parts
3. Vertical Stud
4. Horizontal Track
5. ABM Multi-function Board (MB series)
6. Facing
7. Anchors
8. Ventilation Layer
9. Stone Cladding



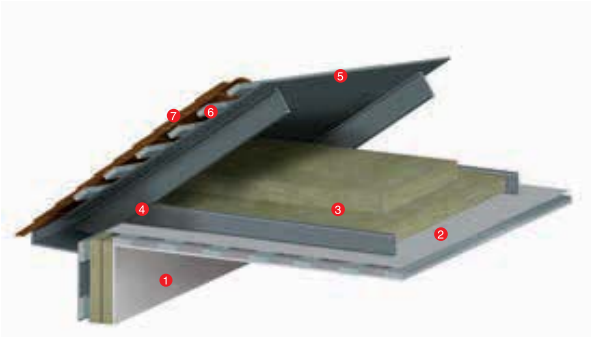
1. Substrate
2. Steel Frame
3. ABM Multi-function Board (MB series)
4. Facing
5. Anchors
6. Metal Panel

Thermal Insulation System for Sandwich Wall



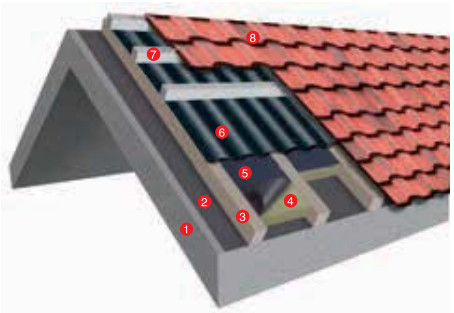
1. Substrate
2. ABM Multi-function Board (MB series)
3. Ventilation Layer
4. Fixings
5. Brick Wall
6. Ventilation Hole

Thermal Insulation System for Attic



1. Interior Decorative Board
2. Waterproof and Vapor Permeable Membrane
3. ABM Multi-function Board (MB series)
4. Stud
5. Fiber Cement
6. Hanging Tile
7. Roof Tile

Thermal Insulation System for Pitched Roof



1. Concrete Floor
2. Waterproof Layer
3. Downstream Article
4. ABM Multi-function Board (MB series)
5. Facing
6. Drainage Board
7. Hanging Tile
8. Roof Tile

Thermal Insulation System for Floor

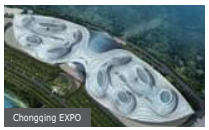
1. Floor
2. Timber
3. ABM Multi-function Board (MB series)
4. OSB Board
5. Wooden Flooring

Thermal Insulation System for Partition Wall

1. Gypsum Board
2. Frame
3. ABM Multi-function Board (MB series)
4. Gypsum Board
5. Finishing Coat

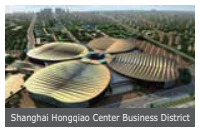
Shanghai Hongqiao International Airport

Shanghai Pudong International Airport



Chongqing EXPO

Hangar



Shanghai Hongqiao Center Business District

Wuhan IKEA

Jin Mao Tower Shanghai Tower Shanghai World Financial Center

Nanjing Meteno

Suzhou Center

China Pavilion

The Oriental Pearl Radio & TV Tower

Australia Pavilion

Shanghai Hongqiao Railway Station

Wuxi Wanda Plaza