

# Insulation

- Rockwool Blankets (Rolls)
- Rockwool Boards (Slabs)
- Glass Wool Boards (Slabs)
- Glass Wool Blankets (Rolls)
- Glass wool Blankets
- Glass wool Slabs







### Rockwool Blankets (Rolls)

Rockwool blanket insulation is a type of flexible insulation made from spun mineral wool, which is derived from a mixture of volcanic rock and slag. Rockwool Rolls are high performance solution for thermal & acoustic insulation for a range of commercial and industrial Buildings.

### Description

Rockwool Duct Warp is a type of flexible insulation made from spun mineral wool, which is derived from a mixture of volcanic rock and slag.

Fibers are bonded together with a thermosetting binder which gives the flexibility & resilience to the products. Rockwool Rockwool Rolls are high performance solution for thermal & acoustic insulation for a range of commercial and industrial Buildings.

They are durable, easy to handle, cut and install. Rockwool Rockwool Rolls comply with ASTM C-553-92 Type VII, E-84, E-119.

### Application

- □ Thermal & Acoustic insulation of rectangular and round, heating, ventilation, air conditioning duct work temperature range 10°C to 600°C.
- □ Used in commercial, industrial, and residential buildings specially for small areas. Helps saving energy up to 80%, controlling heat loss or gain and condensation during system operations.
- Wall insulation Rockwool blanket insulation can also be used in walls, either as a standalone insulation solution or as a supplement to existing insulation.
- HVAC systems Rockwool blanket insulation is commonly used to insulate heating and cooling ducts, reducing heat loss and improving energy efficiency.
- □ Fireproofing Rockwool blanket insulation can also be used for fireproofing in areas where fire safety is a concern.

### Facing

Rockwool Duct Wrap are faced with reflective vapor barrier material (Reinforced Aluminum Foil FSK). FSK, FRK, Unfaced, Wire mesh, BGT, BGF, Kraft Paper, Vinyl Film.

### Advantages

- □ Fire resistance Rockwool blanket insulation has excellent fire resistance, making it an ideal choice for areas where fire safety is a concern.
- Soundproofing I Rockwool blanket insulation provides excellent soundproofing properties, making it a great choice for noisy areas like theaters, recording studios, and multi-unit dwellings.
- Durability Rockwool Rockwool blanket insulation is long-lasting, durable and does not deteriorate over time, making it a cost-effective solution for insulation.
- Moisture and mold resistance Rockwool blanket insulation is resistant to moisture and mold growth, making it a suitable choice for areas with high humidity or damp conditions.
- Environmentally friendly Rockwool blanket insulation is made from sustainable and renewable materials and can be recycled, making it an environmentally friendly choice.
- Easy installation Rockwool blanket insulation is easy to install, making it a popular choice for both contractors and DIY enthusiasts.

### FIRE SAFETY

Rockwool fibers products are classified as Non-Combustible materials and follow the fire safety rating achievements:

- □ Class 1 Surface spread of flame in accordance to BS 476
- □ Class 0 in accordance to BS 476
- □ Class A1 in accordance to European standards
- □ Surface burning characteristics in accordance to ASTM E-84
- □ Fire Spread Index: Less than 10
- Smoke Developed Index: Less than 25

In summary, rockwool blanket insulation is a flexible and versatile insulation solution that offers excellent fire resistance, soundproofing properties, and resistance to moisture and mold. It is an energy-efficient and environmentally friendly option for a wide range of insulation applications.

## Rockwool Blankets (Rolls)

### **Thermal Conductivity**

Mean Temperature (°C)		Th	ermal condu	ctivity (W/m	.k) For the fo	llowing dens	ities in (Kg/n	n3)	
	35	40	50	70	100	128	140	160	200
10	0.036	0.037	0.037	0.038	0.037	0.038	0.038	0.028	0.028
50	0.048	0.039	0.04	0.038	0.037	0.039	0.035	0.037	0.037
100	0.046	0.047	0.047	0.046	0.046	0.049	0.039	0.04	0.04
150	0.054	0.054	0.055	0.053	0.054	0.053	0.041	0.056	0.057
200	0.066	0.067	0.068	0.064	0.06	0.058	0.049	0.055	0.059
250	0.081	0.082	0.084	0.08	0.081	0.069	0.056	0.065	0.067
350	0.112	0.122	0.124	0.12	0.121	0.091	0.084	0.087	0.088
450	0.131	0.142	0.146	0.135	0.136	0.139	0.132	0.128	135

### **Technical Properties**

Property	Value
Service Temp. (Hot Side)	400°C to 600 C
Melting Temp.	1500°C
Outer Facing Temp. Range	-29°C to 66°C
Moisture Absorption	< 1% (By weight, Water repellant, Non-Hygroscopic, Non-Capillary
	No Effect on Stability
Corrosion Resistance	PH 7 or Slightly Alkaline
Soluble Chlorides	6 PPM
Fungi Resistance	Doesn't encourage Fungi growth
Noise Reduction Coefficient (NRC)	≈ 0.85
Asbestos Content	Non-Toxic and not hazardous to health and Asbestos Free
	Does not contain:
	AMPHIBOLE {CA2 MG3(OH)2 SI8 O22} Nor SERPENTINE Asbestos {MG3 SI2 (OH)4 O5}
Environment	CFC and HCFC Free
Expansion and Contraction	Completely Stable
Shot Content	Less than 25% ASTM C-1335
	The vapor diffusion of Rockwool is negligible it is considered zero compared to other insulation
Condensation	materials









### Rockwool Boards (Slabs)

Rockwool Boards are composed of mineral rock fibers, processed from volcanic basaltic rocks, Fibers are bonded together with a thermosetting binder which gives the flexibility & resilience to the product.

### DESCRIPTION

Rockwool board insulation is a type of rigid insulation made from spun mineral wool, which is derived from a mixture of volcanic rock and slag.

It is known for its high thermal resistance, soundproofing capabilities, and fire-resistant properties, making it a popular choice for insulation in a wide range of applications.

Boards are especially rigid than other Rockwool products and comply with ASTM C-612.

### APPLICATION

- □ Wall insulation Used to insulate both residential and commercial buildings, rockwool board insulation provides a continuous layer of insulation in walls, improving the overall energy efficiency of the building.
- Roof insulation It is used to insulate roofs, including pitched and flat roofs, to prevent heat loss and reduce energy costs.
- Floor insulation Rockwool board insulation is also used to insulate floor systems, particularly in commercial buildings where soundproofing is important.
- HVAC systems Rockwool board insulation is commonly used to insulate heating and cooling ducts, reducing heat loss and improving energy efficiency.

### Facing

Rockwool Boards can be non-Faced or faced with reflective vapor barrier material (Reinforced Aluminum Foil FSK) or Kraft Paper, fiber glass tissue BGT or BGF.

### Advantages

- □ Fire resistance Rockwool board insulation has excellent fire resistance, making it an ideal choice for areas where fire safety is a concern.
- □ Soundproofing Rockwool board insulation provides excellent soundproofing properties, making it a great choice for noisy areas like theaters, recording studios, and multi-unit dwellings.
- Durability Rockwool board insulation is long-lasting, durable and does not deteriorate over time, making it a cost-effective solution for insulation.
- Moisture and mold resistance Rockwool board insulation is resistant to moisture and mold growth, making it a suitable choice for areas with high humidity or damp conditions.
- Environmentally friendly Rockwool board insulation is made from sustainable and renewable materials and can be recycled, making it an environmentally friendly choice.
- Easy installation Rockwool board insulation is easy to install, making it a popular choice for both contractors and DIY enthusiasts.

### FIRE SAFETY

Rockwool fibers products are classified as Non-Combustible materials and follow the fire safety rating achievements:

- □ Class 1 Surface spread of flame in accordance to BS 476
- □ Class 0 in accordance to BS 476
- □ Class A1 in accordance to European standards
- □ Surface burning characteristics in accordance to ASTM E-84
- □ Fire Spread Index: Less than 10
- □ Smoke Developed Index: Less than 25

In summary, rockwool board insulation is a versatile and durable insulation solution that offers excellent fire resistance, soundproofing properties, and resistance to moisture and mold. It is an energy-efficient and environmentally friendly option for a wide range of insulation applications.





# Rockwool Boards (Slabs)

### **Technical Properties**

Property	Value	
Service Temp. (Hot Side)	400°C to 750 C	
Melting Temp.	1500°C	
Outer Facing Temp. Range	-29°C to 66°C	
	< 1% (By weight, Water repellant, Non-Hygroscopic, Non-Capillary	
Moisture Absorption	No Effect on Stability	
Corrosion Resistance	PH 7 or Slightly Alkaline	
Soluble Chlorides	6 PPM	
Fungi Resistance	Doesn't encourage Fungi growth	
Noise Reduction Coefficient (NRC)	≈ 0.85	
Asbestos Content	Non-Toxic and not hazardous to health and Asbestos Free	
	Does not contain:	
	AMPHIBOLE {CA2 MG3(OH)2 SI8 O22} Nor SERPENTINE Asbestos {MG3 SI2 (OH)4 O5}	
Environment	CFC and HCFC Free	
Expansion and Contraction	Completely Stable	
Shot Content	Less than 25%	ASTM C-1335
Condensation	The vapor diffusion of Rockal Rockwool is negligible it's considered	
	zero compared to other insulation materials	
Rigidity	Rigid	ASTM C-1101 / M

### **Thermal Conductivity**

T	Thermal Conductivity For the following densities in(Kg/M3)												
Mean Temperature (°C)	35	40	50	70	100	128	140						
10	0.036	0.037	0.037	0.038	0.037	0.038	0.038						
50	0.048	0.039	0.04	0.038	0.037	0.039	0.035						
100	0.046	0.047	0.047	0.046	0.046	0.049	0.039						
150	0.054	0.054	0.055	0.053	0.054	0.053	0.041						
200	0.066	0.067	0.068	0.064	0.06	0.058	0.049						
250	0.081	0.082	0.084	0.08	0.081	0.069	0.056						
350	0.112	0.122	0.124	0.12	0.121	0.091	0.084						
450	0.131	0.142	0.146	0.135	0.136	0.139	0.132						





## Glass Wool Boards (Slabs)

Glasswool boards are a type of insulation material made from recycled glass. They are used in construction to provide thermal and acoustic insulation. The characteristics of Glasswool boards include being lightweight, fire-resistant, and having good insulation properties.

### Description

Glass wool Slabs are semirigid and rigid boards manufactured from stable glass fibers bonded with thermosetting resins.

Capable of withstanding the extreme temperatures encountered in industrial applications or in flat roofing capable of withstanding normal loads met in domestic and commercial structures when used below floor screeds. Easy to handle and cut to suit intricate shapes. Light in weight, strong and resilient.

### Applications of glasswool boards include

1.Building insulation: Used in walls, roofs, and floors to reduce heat transfer 2.Acoustic insulation: Used to reduce noise levels in walls and ceilings.

3.HVAC insulation: Used to insulate pipes, ducts, and equipment to reduce heat loss and improve energy efficiency.

4.Industrial insulation: Used in various industrial applications to reduce heat transfer and noise levels.
5.Marine insulation: Used to insulate ships and boats to improve energy efficiency and reduce noise levels.

### Advantages

1. Thermal Insulation: Good heat insulating properties, helping to reduce energy costs.

2. Acoustic Insulation: Effective soundproofing and sound absorption.

3. Fire Resistant: Made of non-combustible materials and have good fire resistance.

4.Lightweight: Lightweight, making it easy to handle and install.

5. Durable: Resistant to moisture, fungi, and vermin.

6. Environmental friendly: Made from recycled glass and can be recycled after use.

### Facing

Slabs are available unfaced or with a variety of facings to suit the application such as glass reinforced aluminum foil kraft paper (FSK), which combines a pleasing appearance with excellent vapor resistance.

Nominal Density (lbs/ft3)	
1.5	Rolls or Slabs
2	Rolls or Slabs
2.25	Rolls or Slabs
3	Rolls or Slabs
4	Slabs
4.5	Slabs
5	Slabs
6.25	Slabs

### **Standard Dimensions**

Thickness	Width	Length
25	0.4, 0.6, 1.0, 1.2	1.0, 1.2, 2.4
40	0.4, 0.6, 1.0, 1.2	1.0, 1.2, 2.4
50	0.4, 0.6, 1.0, 1.2	1.0, 1.2, 2.4
75	0.4, 0.6, 1.0, 1.2	1.0, 1.2, 2.4
100	0.4, 0.6, 1.0, 1.2	1.0, 1.2, 2.4





## Glass Wool Blankets (Rolls)

Glass wool Rolls are manufactured from stable glass fibers bonded with thermosetting resins. Rolls are noncombustible, moisture resistant, noncorrosive and mold resistant. Glass wool Rolls is designed for thermal & acoustic insulation of pipes, ducts and vessels. Rolls are quick and easy to install.

### Description

Glasswool blankets are a type of insulation material made from recycled glass. They are flexible, lightweight and are used to insulate buildings, pipes, and equipment.

Glass wool Rolls are quick and easy to install, noncombustible providing good fire resistance, moisture resistant and mold resistant Good heat insulation properties, reducing energy costs

### Applications

1.Building insulation: Used to insulate walls, roofs, and floors to reduce heat transfer and improve energy efficiency.

2. Acoustic insulation: Used to reduce noise levels in walls and ceilings.

3.HVAC insulation: Used to insulate pipes, ducts, and equipment to reduce heat loss and improve energy efficiency. 4.Industrial insulation: Used in various industrial applications to reduce heat transfer and noise levels.

5. Marine insulation: Used to insulate ships and boats to improve energy efficiency and reduce noise levels.

### Facing

Rigid Pipe Coverings can be supplied plain or with aluminum foil kraft paper (FSK), high intensity bleached kraft paper (ASJ), BGF and BGF.

### Advantages

1. Thermal Insulation: Good heat insulation properties, reducing energy costs.

2. Acoustic Insulation: Effective soundproofing and sound absorption.

3. Fire Resistant: Made from non-combustible materials, providing good fire resistance.

4.Lightweight: Lightweight, making it easy to handle and install.

5. Durable: Resistant to moisture, fungi, and vermin.

6.Environmentally friendly: Made from recycled glass and can be recycled after use.

### Nominal Density (lbs/ft3)

kg/m	lbs	Availability
10	0.625	Rolls
12	0.75	Rolls
16	1	Rolls
18	1.125	Rolls
20	1.25	Rolls
24	1.5	Rolls or Slabs
32	2	Rolls or Slabs
36	2.25	Rolls or Slabs
48	3	Rolls or Slabs

### Standard Dimension

Thickness	Width	Length
25	0.4	10 to 45 according to thickness & density
40	0.6	
50	1	
75	1.2	
100	1.2	





### **Glass wool Blankets**

Glass wool Rolls are manufactured from stable glass fibers bonded with thermosetting resins.

### Description

Glass wool Rolls are manufactured from stable glass fibers bonded with thermosetting resins. Rolls are quick and easy to install, noncombustible, moisture resistant and mold resistant.

### Application

- Thermal, acoustic insulation and fire protection applications such as walling and partitioning, façade and external wall
- HVAC ducts works,
- □ Automotive industry,
- □ Steel structure and hangers and suspended ceiling.

### Facing

Rigid Pipe Coverings can be supplied plain or with aluminum foil kraft paper (FSK), high intensity bleached kraft paper (ASJ), BGF and BGF.

### **Standard Product:**

Standard Produ Product Type BD	Density		Thickne	ess	Width		Lenath	Length		
	kg/m3	lb/ft3	mm	inch	m	ft	m	ft		
	<b>J</b>		25	1			30	100		
120*	12	0.75	38	1 ½	1.2	4	25	80		
			50	2			20	65		
			25	1			30	100		
140	14	0.875	38	1 ½	1.2	4	25	80		
			50	2			20	65		
			25	1			30	100		
160*	16	1	38	1 1⁄2	1.2	4	25	80		
			50	2			20	65		
			25	1			30	100		
200	20	1.25	38	1 1⁄2	1.2	4	25	80		
			50	2			20	65		
			25	1			30	100		
240*	24	1.5	38	1 1⁄2	1.2	4	25	80		
			50	2			20	65		
			25	1			20	65		
320	32	2	38	1 1⁄2	1.2	4	15	50		
			50	2			10	33		
			25	1			20	65		
480	48	3	38	1 ½	1.2	4	15	50		
			50	2			10	33		
			25	1			20	65		
560	56	3.5	38	1 1⁄2	1.2	4	15	50		
			50	2			10	33		

### **Glass wool Blankets**

### **Thermal Conductivity**

0°C	32°F	10°C	50°F	24°C	75°F	50°C	122°F	75°C	167°F	100°C	212°F
0.036	0.25	0.038	0.27	0.04	0.28	0.048	0.34	0.059	0.41	0.065	0.45
0.036	0.24	0.037	0.26	0.039	0.27	0.046	0.32	0.055	0.38	0.061	0.42
0.034	0.23	0.036	0.25	0.039	0.27	0.044	0.31	0.051	0.35	0.057	0.4
0.032	0.22	0.034	0.23	0.036	0.25	0.041	0.28	0.046	0.32	0.051	0.36
0.031	0.21	0.032	0.22	0.035	0.24	0.039	0.27	0.043	0.3	0.047	0.33
0.03	0.2	<0.031	0.22	0.033	0.23	0.037	0.25	0.04	0.27	0.044	0.3
0.029	0.2	0.03	0.21	0.031	0.22	0.035	0.24	0.037	0.26	0.041	0.29
<0.030	0.21	0.031	0.21	0.032	0.23	0.036	0.24	0.038	0.26	0.042	0.29





### **Glass wool Slabs**

Glass wool Slabs are semirigid and rigid boards manufactured from stable glass fibers bonded with thermosetting resins.

### Description

Glass wool Slabs are semirigid and rigid boards manufactured from stable glass fibers bonded with thermosetting resins. Capable of withstanding the extreme temperatures encountered in industrial applications or in flat roofing capable of withstanding normal loads met in domestic and commercial structures when used below floor screeds.Easy to handle and cut to suit intricate shapes. Light in weight, strong and resilient.

### Application

For thermal and acoustic insulation of concrete floors in order to reduce energy losses and transmission of impact sound.

For insulation of single leaf walls with dressed store or marble facings, curtain wall and coy wall construction, precast structures and prefabricated buildings.

For thermal insulation of concrete and metal roof decks.

#### Facing

Slabs are available unfaced or with a variety of facings to suit the application such as glass reinforced aluminum foil kraft paper (FSK), which combines a pleasing appearance with excellent vapor resistance.

#### Semi Rigid BoardsStandard Products

-	Den	sity	K Value @24 °C		@24 °C R Value / Thickness									
Product Type	Kg / m3	Lb / ft3	W/m·oK	BTU · in / hr · ft2 · oF	25	1	50	2	75	3	100	4	150	6
MBD					mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
240	24	1.5	0.036	0.25	0.69	3.94	1.39	7.87	2.08	11.81	2.78	15.74	4.17	23.62
320	32	2	0.034	0.24	0.74	4.1	1.47	8.2	2.21	12.3	2.94	16.4	4.41	24.6
360	36	2.25	0.034	0.24	0.74	4.1	1.47	8.2	2.21	12.3	2.94	16.4	4.41	24.6

#### **Rigid Boards Standard Products**

Density		K Value @24 °C			R Value / Thickness										
Product Type	Kg / m3	Lb / ft3	W/m·oK	BTU · in / hr · ft2 · oF	25	1	50	2	75	3	100	4	150	6	
MBD					mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	
480	48	3	0.033	0.23	0.76	4.28	1.52	8.56	2.27	12.83	3.03	17.11	4.55	25.67	
560	56	3.5	0.033	0.23	0.76	4.28	1.52	8.56	2.27	12.83	3.03	17.11	4.55	25.67	
640	64	4	0.032	0.23	0.8	4.5	1.6	8.9	2.3	13.4	3.1	17.9	4.7	26.8	
720	72	4.5	0.033	0.22	0.76	4.28	1.52	8.56	2.27	12.83	3.03	17.11	4.55	25.67	
960	96	6	0.033	0.23	0.76	4.28	1.52	8.56	2.27	12.83	3.03	17.11	4.55	25.67	

### **Thermal Conductivity**

Nominal K-Valu	le							
Product Type	Density		Mean Temperature					
MBD	Kg/m3	lb/ft3	10 oC	50 oF	24 oC	75 oF	35 oC	95 oF
240	24	1.5	0.032	0.22	0.036	0.25	0.037	0.26
320	32	2	0.032	0.22	0.034	0.24	0.036	0.25
360	36	2.25	0.032	0.22	0.034	0.24	0.036	0.25
480	48	3	0.031	0.21	0.033	0.23	0.035	0.24
560	56	3.5	0.031	0.21	0.033	0.23	0.034	0.24
640	64	4	0.031	0.21	<0.032	0.23	0.033	0.23
720	72	4.5	0.031	0.21	0.033	0.22	0.034	0.24
960	96	6	0.031	0.21	0.033	0.23	0.034	0.24





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