NICHIAS

MG BOARD™

■ Description

Rockwool is inorganic spun fibers made from natural rocks and minerals bonded by organic binder.

Rockwool is non-combustible, suitable for thermal insulation, fire protection and sound absorption/noise reduction.

MG BOARD is suitable for general insulation purpose on the application in industrial and commercial buildings.

"MG BOARD" is a trademark of Nichias Corporation.

■ Standard Densities and Sizes

Product Name		Nominal Density (kg/m³)	Standard Thickness (mm)	Standard Size (mm)
MG BOARD	060	60	25, 40, 50, 75 and 100	600x1200
	080	80		
	100	100		
	120	120		

*Other densities and sizes are also available on request. For details, please contact us.

■ Maximum Service Temperature and Classification

Product Name		Nominal Density (kg/m³)	Max. Service Temperature (°C)	Test Method	Classification by ASTM C612
MG BOARD	060	60	650	ASTM C411	Type IV
	080	80			
	100	100			
	120	120			

■ Apparent Thermal Conductivities

Product Name	Apparent Thermal Conductivities (W/mK)					Test Method
	Nominal Density (kg/m³)		60	80	100	120	
MG BOARD	Mean Temperature (°C)	24	0.033	0.034	0.034	0.034	ASTM C177
		38	0.036	0.035	0.036	0.036	
		93	0.045	0.043	0.043	0.043	
		149	0.056	0.052	0.050	0.049	
		204	0.064	0.059	0.057	0.055	
		260	0.083	0.072	0.069	0.065	
		316	0.101	0.088	0.082	0.077	
		370	0.121	0.105	0.097	0.089	
		Average 70 +5/-0	0.044 max. (Conform to JIS A9504 requirement)				JIS A1412 ISO 8302

* These figures are actual test result and shall not be used for specification purpose.

MG BOARD™

■ Technical Properties

Items	Unit	MG BOARD 100 Test Results	Spec.	Test Method
Linear Shrinkage at 650°C	%	0.55	2.0 max.	ASTM C356
Fire Performance	–	Non-combustible	–	BS 476 Part 4
Surface burning characteristic	Index	Flame spread 0	25 max.	ASTM E84
	Index	Smoke developed 0	50 max.	
Water vapor sorption	%	0.19	5.0 max.	ASTM C1104
Water absorption	kg/m²	0.044 (Water Repellent)	–	EN 1609
Non fibrous (Shot) content	%	150μm 13.0	–	ASTM C1335
		500μm 1.6	4 max.	JIS A9504
Corrosive resistances	–	Passed 28 day preproduction corrosion test		ASTM C795
Odor emission	–	Pass	–	ASTM C1304
Sound absorption	–	SAA* 1.0	–	ASTM C423
	–	NRC* 1.0	–	

* SAA : Sound Absorption Average NRC: Noise Reduction Coefficient

■ Conforming Specification

- **ASTM C612** — **Mineral Fiber Block and Board Thermal Insulation - Type IV**
- **JIS A 9504** — **Man made mineral fiber thermal insulation materials Rockwool Board No. 1 and 2 (Density : 40～100 and 101～160 kg/m³)**

Remarks : For JIS A9504, our board size (600 x 1200mm) is not conforming to this specification since JIS requirement is either 605 x 910 mm or 605 x1210mm.
For other properties, our board is conforming to JIS requirement.

■ Handling & Storage

- **Handling carefully, avoid damages on the edge and surfaces of product**
- **Store in indoor and protect from direct exposure to the water**

NICHIAS

MG WIRED BLANKET™

Description

Rockwool is inorganic spun fibers made from natural rocks and minerals bonded by organic binder.

Rockwool is non-combustible, suitable for thermal insulation, fire protection and sound absorption/noise reduction.

MG WIRED BLANKET is flexible insulation which galvanized wire mesh of hexagonal pattern is stitched by wire on one side.

"MG WIRED BLANKET" is a trademark of Nichias Corporation.

Standard Densities and Sizes

Product Name		Nominal Density (kg/m³)	Standard Thickness (mm)	Standard Size (mm)	
MG WIRED BLANKET	080	80	25, 40, 50, 75 and 100	900x5000 900x4000 900x3000	600x5000 600x3000
	100	100			
	120	120			

*Other densities and sizes are also available on request. For details, please contact us.

Maximum Service Temperature and Classification

Product Name		Nominal Density (kg/m³)	Max. Service Temperature (°C)	Test Method
MG WIRED BLANKET	080	80	750	ASTM C411/ ASTM C447
	100	100		
	120	120		

Apparent Thermal Conductivities

Product Name	Apparent Thermal Conductivities (W/mK)				Test Method
	Nominal Density (kg/m³)		80	100	120	
MG WIRED BLANKET	Mean Temperature (°C)	24	0.034	0.034	0.034	ASTM C177
		38	0.035	0.036	0.036	
		93	0.043	0.043	0.043	
		149	0.052	0.050	0.049	
		204	0.059	0.057	0.055	
		260	0.072	0.069	0.065	
		316	0.088	0.082	0.077	
		370	0.105	0.097	0.089	
		Average 70 +5/-0	0.044 max. (Conform to JIS A9504 requirement)			JIS A1412 ISO 8302

* These figures are actual test result and shall not be used for specification purpose.
* Based on MG BOARD Data.

PT. NICHIAS ROCKWOOL INDONESIA

MG WIRED BLANKET™

■ Technical Properties

Items	Unit	MG WIRED BLANKET 100 Test Results	Spec.	Test Method
Linear Shrinkage at 650°C	%	0.95	2.0 max.	ASTM C356
Surface burning characteristic	Index	Flame spread 0	25 max.	ASTM E84
	Index	Smoke developed 0	50 max.	
* Water vapor sorption	%	0.19	5.0 max.	ASTM C1104
Water absorption	kg/m²	0.072	–	EN 1609
Non fibrous (Shot) content	%	150μm 13.0	–	ASTM C1335
		500μm 1.6	4 max.	JIS A9504
Corrosive resistances	–	Passed 28 day preproduction corrosion test		ASTM C795
* Odor emission	–	Pass	–	ASTM C1304

* Based on MG BOARD 100 data.

■ Conforming Specification

- **ASTM C592** — **Standard Specification for Mineral Fiber Blanket Insulation and Blanket -Type Pipe Insulation (Metal-Mesh Covered) (Industrial Type)**
- **JIS A 9504** — **Man made mineral fiber thermal insulation materials Rockwool Blanket No. 1 and 2 (Density : 40～100 and 101～160 kg/m³)**

  Remarks : For JIS A9504, our blanket size (600/900 x 3000、4000、5000mm) is not conforming to this specification since JIS requirement is either 605 x 2000 mm or 605 x4000、5000mm.

■ Handling & Storage

- **Handling carefully, avoid damages on the edge and surfaces of product**
- **Store in indoor and protect from direct exposure to the water**

NICHIAS

MG MIGHTY ROLL™

■ Description

Rockwool is inorganic spun fibers made from natural rocks and minerals bonded by organic binder.

Rockwool is non-combustible, suitable for thermal insulation, fire protection and sound absorption/noise reduction.

MG MIGHTY ROLL is flexible blanket insulation suitable for general application.

"MG MIGHTY ROLL" is a trademark of Nichias Corporation.

■ Standard Densities and Sizes

Product Name		Nominal Density (kg/m³)	Standard Thickness (mm)	Standard Size (mm)
MG MIGHTY ROLL	060	60	25, 40, 50, 75 and 100	600x5000 600x4000 600x3000
	080	80		
	100	100		

*Other densities and sizes are also available on request. For details, please contact us.

■ Maximum Service Temperature and Classification

Product Name		Nominal Density (kg/m³)	Max. Service Temperature (°C)	Test Method	Classification by ASTM C553
MG MIGHTY ROLL	060	60	650	ASTM C411	Type VII
	080	80			
	100	100			

■ Apparent Thermal Conductivities

Product Name	Apparent Thermal Conductivities (W/mK)					Test Method
	Nominal Density (kg/m³)		60	80	100	
MG MIGHTY ROLL	Mean Temperature (°C)	24	0.033	0.034	0.034	ASTM C177
		38	0.036	0.035	0.036	
		93	0.045	0.043	0.043	
		149	0.056	0.052	0.050	
		204	0.064	0.059	0.057	
		260	0.083	0.072	0.069	
		316	0.101	0.088	0.082	
		370	0.121	0.105	0.097	
		Average 70 +5/-0	0.044 max. (Conform to JIS A9504 requirement)			JIS A1412 ISO 8302

* These figures are actual test result and shall not be used for specification purpose.
* Based on MG BOARD Data.

MG MIGHTY ROLL™

■ Technical Properties

Items	Unit	Test Results*	Spec.	Test Method
Linear Shrinkage at 650°C	%	1.22	2.0 max.	ASTM C356
Fire Performance	–	Non-combustible	–	BS 476 Part 4
Surface burning characteristic	Index	Flame spread 0	25 max.	ASTM E84
	Index	Smoke developed 0	50 max.	
Water vapor sorption	%	0.29	5.0 max.	ASTM C1104
Water absorption	kg/m²	0.034	–	EN 1609
Non fibrous (Shot) content	%	150μm 13.0	–	ASTM C1335
		500μm 1.6	4 max.	JIS A9504
Corrosive resistances	–	Passed 28 day preproduction corrosion test		ASTM C795
Odor emission	–	Pass	–	ASTM C1304
Sound absorption	–	SAA** 1.0	–	ASTM C423
	–	NRC** 1.0	–	

* Based on MG BOARD 080 Data.
** SAA : Sound Absorption Average NRC: Noise Reduction Coefficient

■ Conforming Specification

- **ASTM C553** — **Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications**
- **JIS A 9504** — **Man made mineral fiber thermal insulation materials Rockwool Felt (Density : 20～70kg/m³)**

Remarks : For JIS A9504, our Roll size (600 x 3000、4000、5000mm) is not conforming to this specification since JIS requirement is either 910 x 55000 mm or 910 x 11000 mm.

■ Handling & Storage

- **Handling carefully, avoid damages on the edge and surfaces of product**
- **Store in indoor and protect from direct exposure to the water**

NICHIAS

MG MIGHTY COVER™

■ Description

Rockwool is inorganic spun fibers made from natural rocks and minerals bonded by organic binder.

Rockwool is non-combustible, suitable for thermal insulation, fire protection and sound absorption/noise reduction.

MG MIGHTY COVER is pre-formed sectional pipe insulation. Snap-on type having split is supplied.

"MG MIGHTY COVER" is a trademark of Nichias Corporation.

■ Standard Densities and Sizes

Product Name	Nominal Density (kg/m³)	Standard Thickness (mm)	Standard Size (mm)
MG MIGHTY COVER	90-150	25,30,40, 50,65,75 and 100	1000

* Other densities and sizes are also available on request. For details, please contact us.

Nominal Pipe Size (ANSI)

NSP(inch)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	8	10
ID(mm)	22	27	34	43	49	61	76	89	102	114	140	168	219	274
NSP(inch)	12	14	16	18	20	22	24	26	28	30	32	34	36	
ID(mm)	324	356	406	457	508	559	610	660	711	762	813	864	914	

* Available thickness are not for all sizes, Please contact before order.

■ Maximum Service Temperature and Classification

Product Name	Nominal Density (kg/m³)	Max. Service Temperature (°C)	Test Method
MG MIGHTY COVER	90 –150	650	ASTM C411

* Based on MG BOARD Data.

■ Apparent Thermal Conductivities

Product Name	Apparent Thermal Conductivities (W/mK)			Test Method
MG MIGHTY COVER	Mean Temperature (°C)	Average 70 +5/-0	0.044 max. (Conform to JIS A9504 requirement)	JIS A1412 ISO 8302

* These figures are actual test result and shall not be used for specification purpose.
* Based on MG BOARD Data.

MG MIGHTY COVER™

■ Technical Properties

Items	Unit	Test Results*	Spec.	Test Method
Linear Shrinkage at 650°C	%	1.22	2.0 max.	ASTM C356
Surface burning characteristic	Index	Flame spread 0	25 max.	ASTM E84
	Index	Smoke developed 0	50 max.	
Water vapor sorption	%	0.29	5.0 max.	ASTM C1104
Water absorption	kg/m²	0.034	–	EN 1609
Non fibrous (Shot) content	%	150μm 13.0	–	ASTM C1335
		500μm 1.6	4 max.	JIS A9504
Corrosive resistances	–	Passed 28 day preproduction corrosion test		ASTM C795

* Based on MG BOARD 080 Data.

■ Conforming Specification

- **ASTM C547** — Standard Specification for Mineral Fiber Pipe Insulation
- **JIS A 9504** — Man made mineral fiber thermal insulation materials Rockwool pipe insulation (Density : 40～200 kg/m³)

■ Handling & Storage

- Handling carefully, avoid damages on the edge and surfaces of product
- Store in indoor and protect from direct exposure to the water