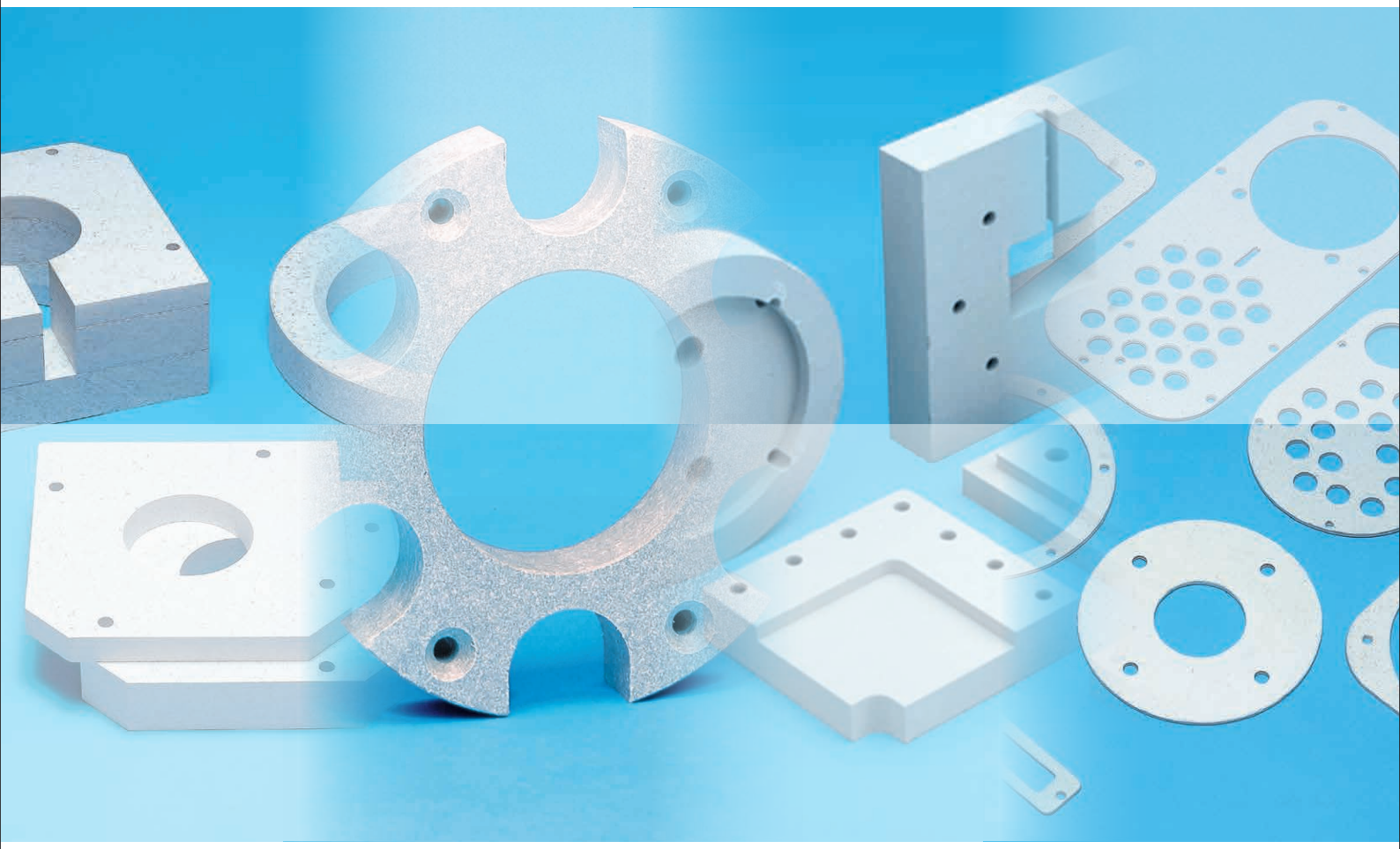
TOMBO™ BRAND

July 2021

# THERMAL INSULATION BOARDS



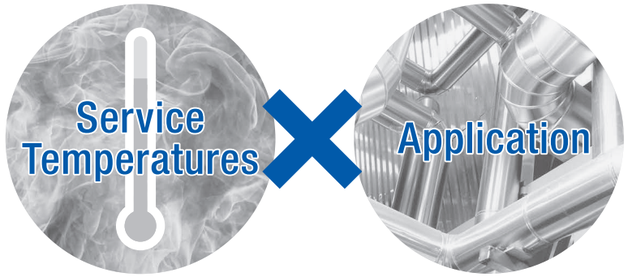
NICHIAS

# “Insulate Heat”

## Core Technology of NICHIAS

**NICHIAS thermal insulation board series,
based on technologies we have developed and improved over 100 years,
can meet customers’ needs.**

In its history over 100 years, NICHIAS has extended its business fields from the electric power industry to the petrochemical, automobile, construction, electronic, and environmental industries. The thermal insulation board business is the primary enterprise of the company integrating the originally developed heat technologies based on the concept of “Insulate Heat” and NICHIAS has an ample selection of high quality products ranging from thermal insulation boards for industrial equipment such as heat presses, tire vulcanizers and injection molders to thermal insulation sheets for automotive parts and electric / electronic parts to thermal insulation boards for furnaces for high temperatures over 1000°C Our technologies and experiences developed over 100 years enable us to provide products and services to satisfy diversified thermo-environmental needs of customers.




**Product lineup offers a wide selection**

As a pioneer of thermal insulation boards, we supply a wide selection of originally developed products.

**Advantages of NICHIAS Thermal Insulation Board**

**Excellent in machinability for a wide variety of applications.**

The products meet diversified needs of customers with excellent machinability and bending strength for a wide variety of applications.

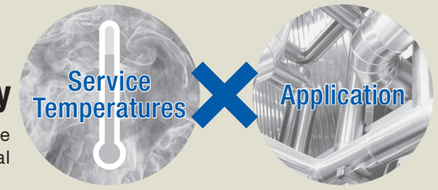
Measuring equipment of thermal conductivity coefficient

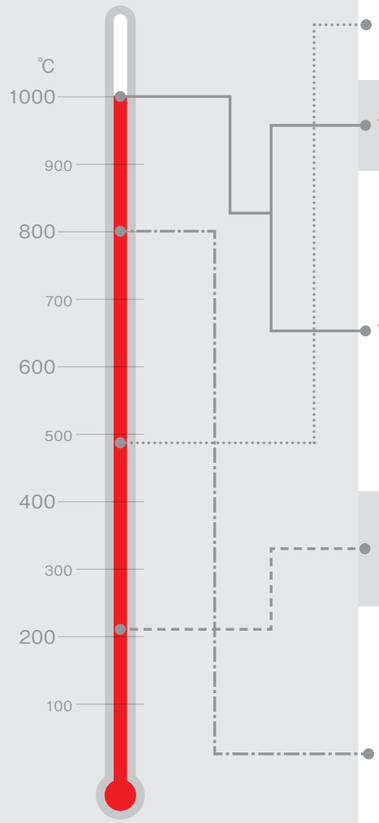
Hot Tester

* TOMBO is a registered trademark or trademark of NICHIAS Corporation.
* Product names with Ⓡ are registered trademarks of NICHIAS Corporation.
* Product names with TM are trademarks of NICHIAS Corporation.

## NICHIAS Thermal Insulation Boards Selected by Service Temperatures × Application

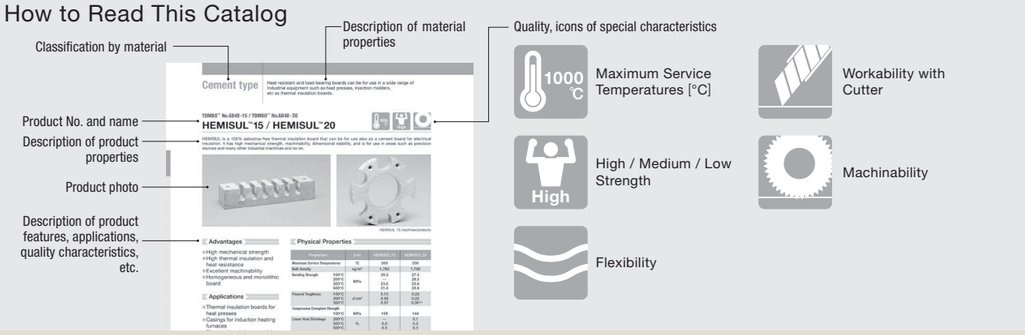
NICHIAS thermal insulation boards possess a product lineup for each of the service temperatures and applications with a variety of advantages including thermal insulation, heat resistance, strength, durability, machinability and flexibility.




| Service Temperatures (Maximum Service Temperatures) | Application | Properties by Shape and Material | | TOMBO™ No. Product Name | |
|---|---|---|---|---|---|
| 500℃ | ●Thermal insulation boards for heat presses<br>●Electrical insulation materials for induction furnaces | Board-shaped thermal insulation materials | Cement type<br>Thermal insulation boards used for electrical insulation in the fields of precision equipment and various industrial equipment | 6840-15/20<br>HEMISUL™ 15/20 | P.2 |
| 1000℃ | ●Electric and thermal insulation boards | | | 6850<br>NEOARK™ | P.3 |
| 1000℃ | ●Thermal Insulation Materials For Molten Aluminum | | Calcium silicate type<br>Thermal insulation boards that are made mainly of calcium silicate with high thermal resistance and high thermal insulation | 4720-L14Z/L100<br>LUMIBOARD™ -L14Z/L100 | P.4 |
| | ●Insulating material for industrial furnaces (backup material)<br>●Insulating material for combustion equipment | | | 4900<br>SUPERTEMP™ Board | P.5 |
| | ●Insulating material for industrial furnaces (backup material)<br>●Insulating material for combustion equipment | | Low thermal conductivity type<br>Thermal insulation boards with ultra-low thermal conductivity used for industrial furnaces and combustion equipment | 4350-H/GH<br>ROSLIM™ Board H/GH | P.6 , P.7 |
| 210℃ | ●Thermal insulation boards for hot pressing | | Resin type<br>High-strength thermal insulation boards impregnated and molded with synthetic resin | 6870-K<br>REGISUL™ K | P.8 |
| 800℃ | ●Heat sealing materials | Sheet-shaped thermal insulation materials | Millboard type<br>General-purpose, heat-resistant sheets mainly composed of inorganic minerals and molded according to papermaking method | 6702<br>NA Millboard | P.9 |
| | ●Heat sealing materials | | | 6701<br>SUPERLAG™ | |
| | ●Heat sealing materials<br>●Gas sealing materials | | | 6750-S/P<br>VERMOSUL™ Sheet-S/P | P.10 |
| | ●Heat sealing materials<br>●Thermal buffer | | | 6760-A<br>VERMOFLEX™ -A | P.11 |

### How to Read This Catalog



# Cement type

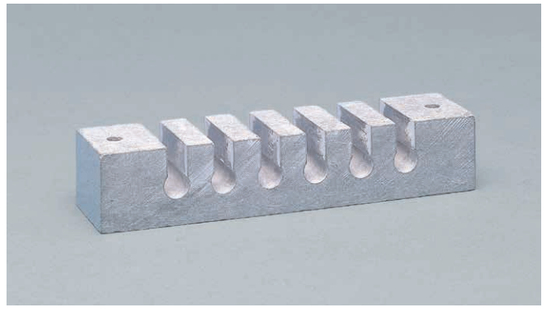
Heat resistant and load-bearing boards can be for use in a wide range of industrial equipment such as heat presses, injection molders, etc as thermal insulation boards.

## TOMBO™ No.6840-15 / TOMBO™ No.6840-20

# HEMISUL™15 / HEMISUL™20

500 ℃ | High

HEMISUL is a 100% asbestos-free thermal insulation board that can be for use also as a cement board for electrical insulation. It has high mechanical strength, machinability, dimensional stability, and is for use in areas such as precision devices and many other industrial machines and so on.



HEMISUL 15 machined products

## Advantages

- High mechanical strength
- High thermal insulation and heat resistance
- Excellent machinability
- Homogeneous and monolithic board

## Applications

- Thermal insulation boards for heat presses
- Casings for induction heating furnaces
- Electrical insulation materials for induction furnaces
- Base plates and support materials for the equipment
- Thermal insulation components for the equipment

## Physical Properties

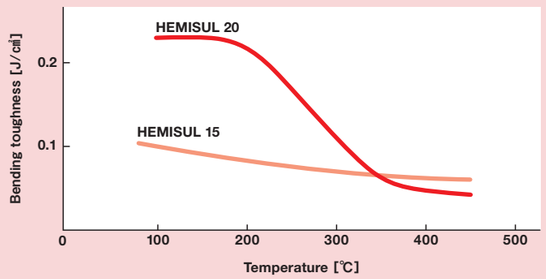
| Properties | | Unit | HEMISUL 15 | HEMISUL 20 |
|---|---|---|---|---|
| Maximum Service Temperatures | | °C | 500 | 500 |
| Bulk Density | | kg/m³ | 1,750 | 1,700 |
| Bending Strength | 100°C | MPa | 29.5 | 27.5 |
| | 200°C | | — | 26.5 |
| | 350°C | | 23.6 | 23.6 |
| | 500°C | | 21.6 | 20.6 |
| Flexural Toughness | 100°C | J/cm² | 0.10 | 0.23 |
| | 200°C | | 0.08 | 0.22 |
| | 350°C | | 0.07 | 0.06※1 |
| Compressive Disrupture Strength | 100°C | MPa | 108 | 144 |
| Linear Heat Shrinkage | 200°C | % | — | 0.1 |
| | 350°C | | 0.2 | 0.2 |
| | 500°C | | 0.3 | 0.3 |
| Charpy Impact | 100°C | J/cm² | 0.24 | 0.32 |
| Volume Resistivity (after drying) | | Ω·cm | $10^{13}$ | $10^{14}$ |
| Surface Resistivity (after drying) | | Ω | $10^{13}$ | $10^{13}$ |
| Heat Resistance | | °C | 500 | 500(250)※2 |
| Thermal Conductivity | 200°C | W/(m·K) | 0.41 | 0.43 |
| | 400°C | | 0.43 | 0.43 |
| Appearance | | | Gray | |

* These figures are test results and should not be used for specification purposes.

※1 The figures of strength for each temperature are test results at room temperature alter heating.

※2 It can be used in temperatures higher than those shown in the above table in the case of partial exposure to heating.

### Changes in toughness level of HEMISUL during heating of entire surface



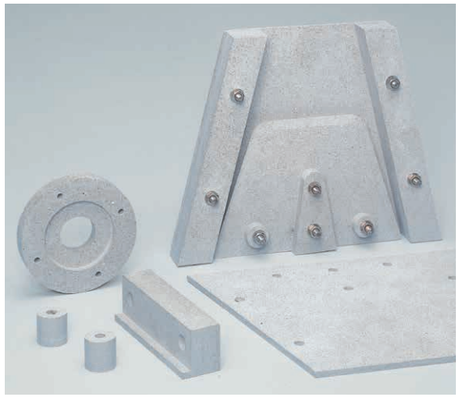



## TOMBO™ No.6850

# NEOARK™

1000 ℃ | High

NEOARK is a non-sintered and chemically bound ceramic (CBS) Product and is a completely inorganic composite material. NEOARK is thermal and electric insulation boards that have high heat resistance and strength designed to be for use also in automotive ark shooter materials where service conditions are very severe.



NEOARK machined products

* Moisture content of NEOARK might cause deformation when it is exposed to rapid heating with its both top and bottom surface covered. In this case pre-calcining is necessary to prevent the deformation from occurring. If the service conditions are similar to the above, please contact us.

## Advantages

- Retains high strength after heated in high temperatures (Fire resistant to 1000°C)
- Low dimensional changes after heated in high temperatures
- Excellent electrical insulation properties
- Incombustible due to inorganic composite material

## Applications

- Mild steel fixing jig in steel making process
- Thermal insulation board for spin block heaters of spinning machines
- Heater terminal receiver for semiconductor devices
- Graphite-type thermal insulation board for sintering with powdered metals
- Arc chute materials for automotive and industrial use
- Thermal insulation and electrical insulation applications requiring high thermal resistance and high strength

## Physical Properties

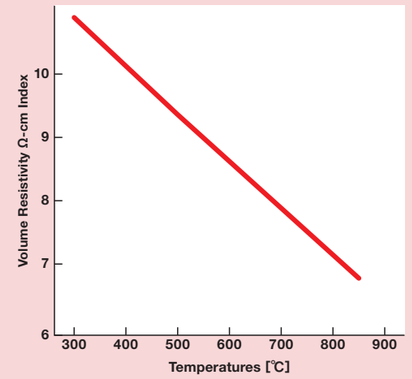
| Properties | | Unit | NEOARK |
|---|---|---|---|
| Maximum Service Temperatures | | °C | 1,000 |
| Bulk Density | | kg/m³ | 2,350 |
| Bending Strength | 100°C | MPa | 39 |
| | 500°C | | 34 |
| | 1000°C | | 26 |
| Compressive Breaking Strength | | MPa | 154 |
| Linear Heat Shrinkage | 1000°C | % | 0.2 |
| Charpy Impact | | J/cm² | 0.24 |
| Brinell Hardness※1 | | — | 40 |
| Water Absorption | | % | 6.0 |
| Volume Resistivity (after drying) | | Ω·cm | $10^{13}$ |
| Surface Resistivity (after drying) | | Ω | $10^{13}$ |
| Dielectric Breakdown Strengh (after drying) | | kV/mm | 5.6 |
| Thermal Conductivity | 200°C | W/(m·K) | 0.51 |
| | 400°C | | 0.59 |
| | 600°C | | 0.62 |
| Linear Expansion Coefficient | | ×10⁻⁶/°C | 5.6 |

* These figures are test results and should not be used for specification purposes.

* The data after high temperature heating are measured at normal temperature after heating.

※1 Brinell Strength : HB 10/500/10

### Volume Resistivity at room temperature after heating at high temperatures




* The volume resistivity on the y-axis shows the n-value (n-plex or n-th power) as in the volume resistivity (Ω-cm) = x × $10^n$. Accordingly the y-axis shows values in the range from $10^6$ through $10^{11}$.

**Cautions for handling the product**

If HEMISUL or NEOARK is used for the first time or has not been used for a long time, it may absorb moisture. Rapid heating while moisture has been absorbed may cause cracks or deformation due to the impact of the moisture.In such a case, dry the product thoroughly at a temperature of about 100 to 150°C before use. If the product is used for a long time at high temperatures while in contact with oil, there is also a possibility that cracks and deformation may occur.

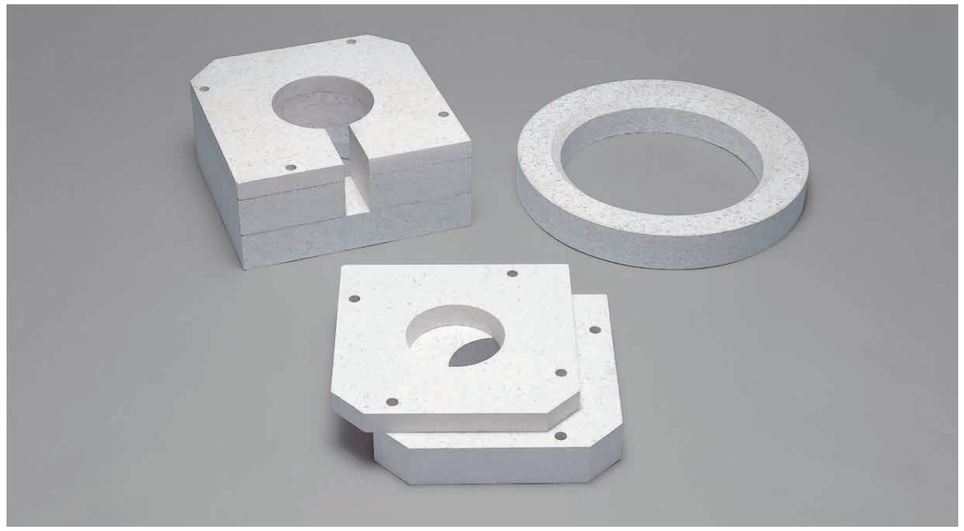
# Calcium silicate type

It is a thermal insulation board made mainly of calcium silicate with excellent thermal resistance and machinability.
It can be used as a backup material for thermal insulation materials used for industrial furnaces.

**TOMBO™ No.4720-L14Z / TOMBO™ No.4720-L100**

## LUMIBOARD™ L14Z / LUMIBOARD™ L100


LUMIBOARD are thermal insulation boards that possess high heat resistance and high thermal insulation. It is excellent in dimensional stability in high temperatures and features high machinability.
There are two types of product: L-14Z for normal use and L-100, which contains special reinforced fibers, for use as a casting material such as a hot top ring.



LUMIBOARD-L100 machined products

### Advantages

- Excellent in heat resistance and thermal insulation
- Dimensionally stable in high temperatures
- Excellent machinability
- Difficult to wet with molten aluminum

### Applications

- Back lining materials for ladle furnaces
- Burning table for cathode-ray tubes
- Thermal insulation boards for iron-making machines
- Thermal insulation boards for yarn-making machines
- Insulating material for molten aluminum

### Physical Properties

| Properties | | Unit | LUMIBOARD | | | |
|---|---|---|---|---|---|---|
| | | | L14Z | | L100 | |
| Maximum Service Temperatures | | °C | 1,000 | | 1,000 | |
| Bulk Density | | kg/m³ | 840 | | 800 | |
| Duro Hardness | | D scale | 64 | | 64 | |
| Bending Strength | | MPa | | | | |
| | In ambient temperatures | | 8.8 | | 9.3 | |
| | 750°C×24hr | | 6.8 | | 6.1 | |
| | 1000°C×24hr | | 1.7 | | 1.0 | |
| Compressive Strength | | MPa | | | | |
| | 0.5% Compaction | | 0.7 | | 0.9 | |
| | 1.0% Compaction | | 2.3 | | 2.7 | |
| Linear Heat Shrinkage | | % | Length | Thickness | Length | Thickness |
| | 750°C×24hr | | 0.4 | 1.1 | 0.4 | 1.1 |
| | 1000°C×24hr | | 0.9 | 4.6 | 0.6 | 2.0 |
| Thermal Conductivity | 300°C | W/(m·K) | 0.20 | | 0.19 | |
| | 500°C | | 0.20 | | 0.20 | |
| | 700°C | | 0.20 | | 0.20 | |

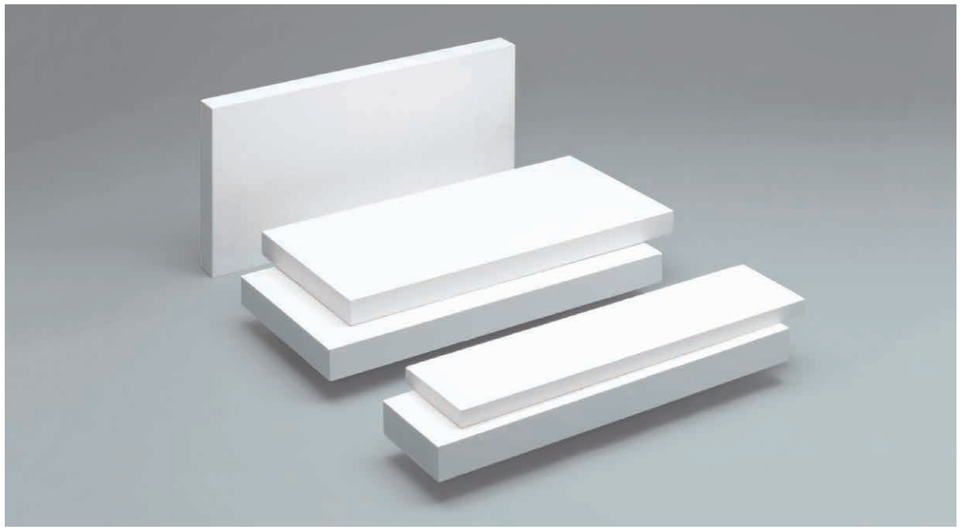
* These figures are test results and should not be used for specification purposes.
* The figures of strength for each temperature are test results at room temperature after heating.
* When using LUMIBOARD in direct contact with molten aluminum, refer to the “Thermal insulation materials for molten aluminum” catalog.



**TOMBO™ No.4900**

## SUPERTEMP™ Board


SUPERTEMP Board is a lightweight, high thermal resistance, and high thermal insulating performance insulating material which mainly composed of calcium silicate.
It has excellent machinability and is widely used in industrial facilities.



### Advantages

- High thermal resistance
- High thermal insulation
- Excellent machinability

### Applications

- Insulating material for industrial furnaces (backup material)
- Insulating material for combustion equipment

### Physical Properties

| Properties | | Unit | SUPERTEMP Board |
|---|---|---|---|
| Maximum Service Temperatures | | °C | 1,000 |
| Bulk Density | | kg/m³ | 210 |
| Bending Strength | | MPa | 1.0 |
| Linear Heat Shrinkage | 1000°C×3hr | % | 1.1 |
| Thermal Conductivity | 300°C | W/(m·K) | 0.076 |
| | 500°C | | 0.110 |

* These figures are test results and should not be used for specification purposes.

**Cautions for handling the product**

Rapid heating may cause cracks or deformation due to moisture absorption during storage or water absorption of sealant joints during construction.
To prevent this from occurring, dry thoroughly before use.

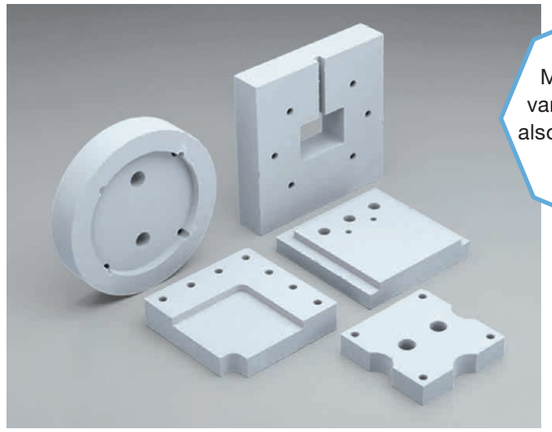
# Low thermal conductivity type

Among thermal insulation materials, these materials have particularly superior "thermal resistance" and "thermal insulation" properties. It is suitable for locations that demand high temperature resistance and strong insulation such as industrial furnaces, combustion equipment, iron-making equipment, etc.

**TOMBO™ No.4350-H / TOMBO™ No.4350-GH**

## ROSLIM™ Board H / ROSLIM™ Board GH

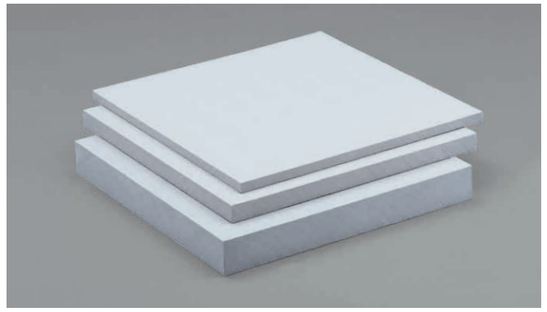
ROSLIM Board (GH) is a revolutionary product with extremely low thermal conductivity properties and improved brittleness and dust emission characteristics.
With its greatly improved strength, it can be processed into complicated shapes that were previously unattainable. Its handling characteristics and attachment workability have also been greatly improved, making it easy to work with.



ROSLIM Board GH machined products

Machining into various shapes is also available upon request.

ROSLIM Board GH won the 2015 Energy Conservation Grand Prize.



### Advantages

- Excellent thermal insulation property that surpasses that of still air
- Excellent handling property
- Excellent processing property that eliminate the need for special tools

### Applications

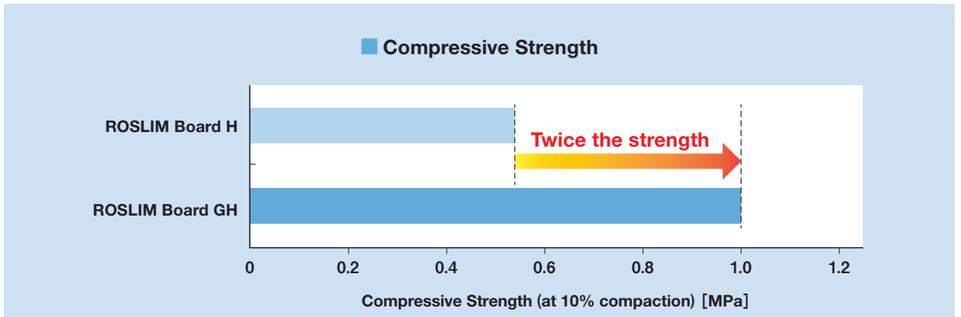
- Insulating material for industrial furnaces (backup material)
- Insulating material for combustion equipment
- Insulating material for melting and holding furnaces

### Physical Properties

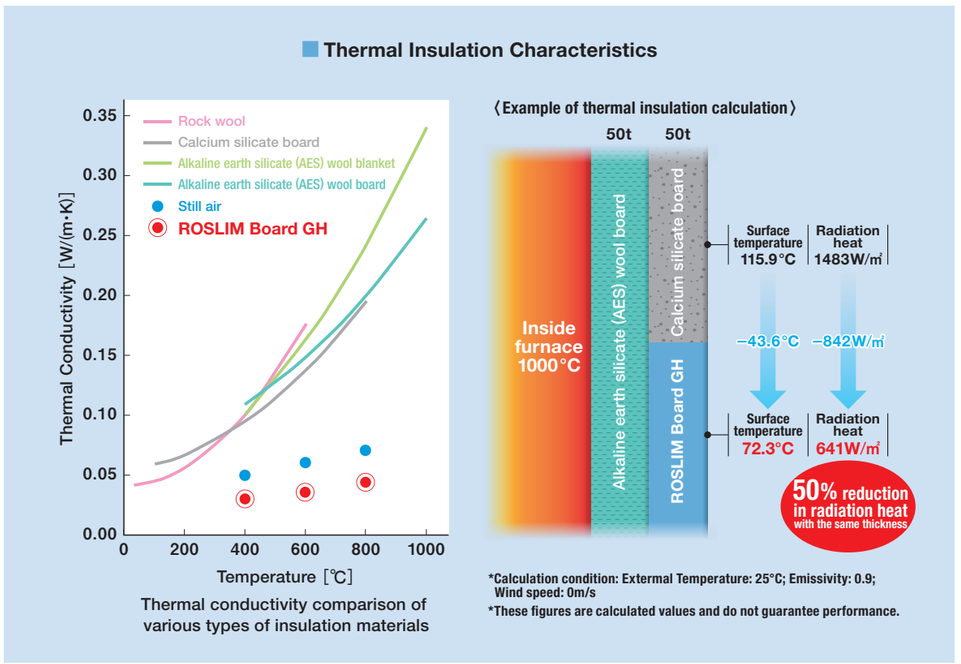
| Properties | | Unit | ROSLIM Board H | ROSLIM Board GH |
|---|---|---|---|---|
| Maximum Service Temperatures | | °C | 1,000 | 1,000 |
| Bulk Density | | kg/m³ | 250 | 250 |
| Compressive Strength | 10% Compaction | MPa | 0.54 | 1.02 |
| Linear Heat Shrinkage | 800°C×24hr | % | 0.6 | 0.6 |
| | 1000°C×24hr | | 2.5 | 2.5 |
| Thermal Conductivity | 400°C | W/(m·K) | 0.029 | 0.030 |
| | 600°C | | 0.035 | 0.036 |
| | 800°C | | 0.044 | 0.044 |

* These figures are test results and should not be used for specification purposes.






* These figures are test results and are not guaranteed.




* The values for rock wool, AES wool blanket, AES wool board, and ROSLIM Board GH are actual values measured by NICHIAS Corporation. The values for calcium silicate boards and still air are theoretical values.

**Cautions for handling the product**

Store ROSLIM in a well-ventilated indoor area away from rain. Be careful not to get wet. If it comes into contact with water, it will lose its shape and its performance will significantly decrease.

# Resin type

It is a composite thermal insulation material made up of organic components and an inorganic components with excellent thermal insulation.
It can be used as a thermal insulation board for a heat press.

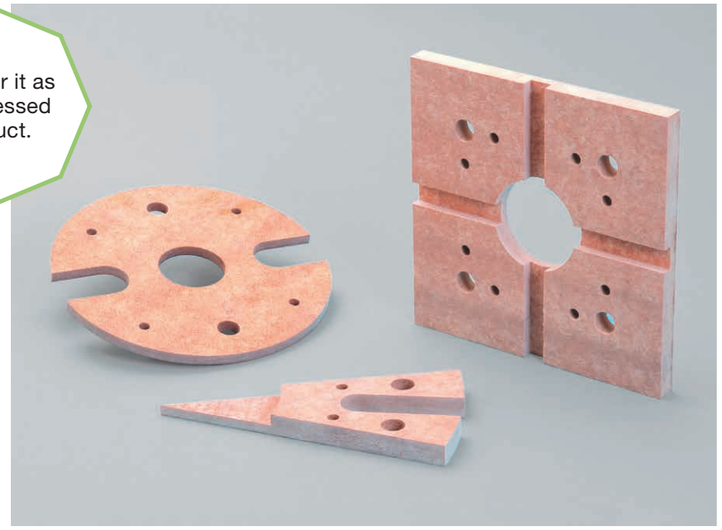
TOMBO™ No.6870-K

## REGISUL™ K

210 ℃ | High

REGISUL K is a thermal insulation board formed by impregnating a glass fiber sheet, which has superior heat-resisting properties, with synthetic resin. It is very strong and has excellent thermal insulation properties.

We offer it as a processed product.



REGISUL K machined products

### Advantages

- Light-weight and easy to handle
- Excellent thermal insulation properties together with high strength
- Maintains high strength after heating
- Does not fracture or chip easily
- Excellent machinability

### Applications

- Thermal insulation boards for hot pressing (resins, rubber, etc.)
- Thermal insulation for production machinery used under conditions that require heat resistance up to 210°C

### Physical Properties

| Properties | | Unit | REGISUL K |
|---|---|---|---|
| Maximum Service Temperatures | | °C | 210 |
| Bulk Density | | kg/m³ | 1,020 |
| Rockwell Hardness | | — | 97 |
| Bending Strength | | MPa | 95 |
| Tensile Strength | | MPa | 57 |
| Compressive Strength | 25°C<br>210°C | MPa | 70<br>63 |
| Charpy Impact | | kJ/m³ | 21 |
| Dielectric Strength | | kV/m | 5.9 |
| Insulation Resistance (normal state) | | Ω | $10^{12}$ |
| Water Absorption | | % | 2.0 |
| Thermal Conductivity | | W/(m·K) | 0.12 |

* These figures are test results and should not be used for specification purposes.

### Precautions for handling glass filament products

**⚠ CAUTION**

- Do not use a product for any other than the purpose described in the catalog and specification.
- Store products indoor at ordinary temperature and humidity, and strictly avoid to get wet.
- For disposal, follow local regulations.

**Since this product contains continuous glass filament, please observe the following cautions.**

Contact to continuas glass filament may cause itching and/or inflammation of skin, eyes, a throat or a nose.

- Wear respirator, protective goggles, protective gloves and work clothes with long sleeves.
- Wash hands with warm water and soap and rinse mouth every time after handling.
- Waste by cutting shall be put in a waste bag immediately in order to prevent from scattering of the dust.
- Wash the work clothes separately from other clothing.
- Get medical advice/attention, when an itch, a pain continue.

GF2002A_E



# Millboard type

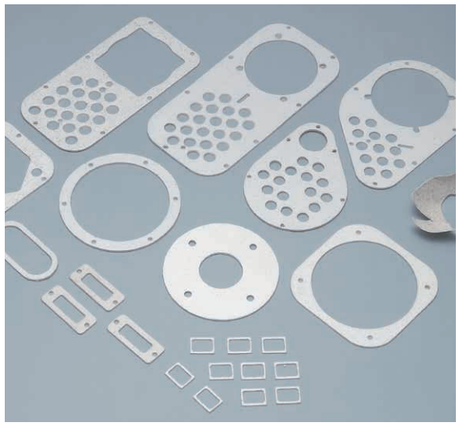
It is a thermal insulation sheet with excellent machinability.
It is suitable for backup materials such as heat-resistant bricks as well as combustion gas sealing materials.

TOMBO™ No.6702

## NA Millboard

800 ℃

NA Millboard are sheets made of inorganic materials with some organic binders through paper making process. NA Millboard has low thermal conductivity and has superior heat resistance (800°C).



NA Millboard machined products

### Advantages

- Excellent heat resistance

### Applications

- General thermal insulation materials
- Fire resistant materials

### Physical Properties

| Properties | | Unit | NA Millboard |
|---|---|---|---|
| Maximum Service Temperatures | | °C | 800 |
| Bulk Density | | kg/m³ | 950 |
| Tensile Strength | | MPa | 1.6 |
| Ignition Loss | 850°C×30min | % | 8 |
| Compression Rate | 6.86MPa | % | 20 |
| Compressive Recovery Ratio | 6.86MPa | % | 30 |
| Moisture Content | | % | 2 |
| Thermal Conductivity | 400°C<br>600°C | W/(m·K) | 0.10<br>0.11 |

* These figures are test results and should not be used for specification purposes.

TOMBO™ No.6701

## SUPERLAG™

800 ℃

SUPERLAG are millboards made mainly of inorganic minerals and rock wool with some organic binder and organic fiber through the production process used in papermaking. It is excellent in terms of handling and workability due to its high strength in normal ambient conditions and its high peel strength. It is highly flexible and easy to bend.

### Advantages

- Excellent in flexibility
- Strong in normal ambient conditions and easy to handle for installation
- High peel strength between layers and excellent workability
- Excellent in heat resistance and small in linear heat shrinkage

### Applications

- Applications that require processing such as stamping and cutting
- Applications that require bending

### Physical Properties

| Properties | | Unit | SUPERLAG |
|---|---|---|---|
| Maximum Service Temperatures | | °C | 800 |
| Bulk Density | | kg/m³ | 950 |
| Tensile Strength | | MPa | 2.3 |
| Peel Strength | | Pa | $5.0\times10^{4}$ |
| Ignition Loss | 850°C×30min | % | 15 |
| Linear Heat Shrinkage | 650°C×3hr | % | 0.25 |
| Compression Rate | 6.86MPa | % | 25 |
| Compressive Recovery Ratio | 6.86MPa | % | 35 |
| Folding Strength | | ° | 40 |
| Moisture Content | | % | 2 |
| Thermal Conductivity | 400°C<br>600°C | W/(m·K) | 0.09<br>0.10 |

* These figures are test results and should not be used for specification purposes.

# Millboard type

It is a thermal insulation sheet with excellent machinability.
It is suitable for backup materials such as heat-resistant bricks as well as combustion gas sealing materials.

## TOMBO™ No.6750-S / TOMBO™ No.6750-P

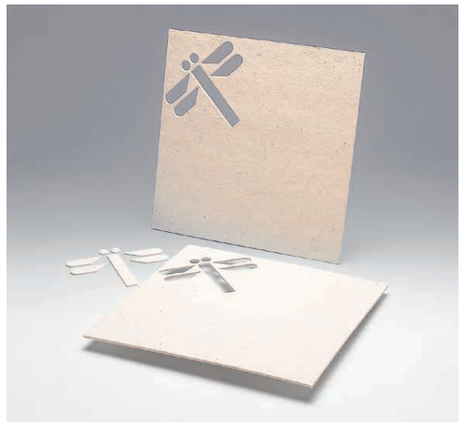
## VERMOSUL™ Sheet-S / VERMOSUL™ Sheet-P

800 ℃

[ **VERMOSUL Sheet-S** ] VERMOSUL Sheet-S are sheets made of a few kinds of inorganic minerals with some organic binders through the production process used in papermaking. It is a versatile thermal insulation millboard that withstands temperatures up to 800°C.

[ **VERMOSUL Sheet-P** ] VERMOSUL Sheet-Pare sheets made of a few kinds of inorganic minerals and inorganic binders through the production process used in papermaking. It is a thermal insulation millboard that is excellent in mechanical strength, compression recovery and sealing performance in temperatures up to 800°C.

(This product can not be used to seal plant equipment such as piping and machinery.)



VERMOSUL Sheet machined products

### VERMOSUL Sheet-S Applications

- Back lining for heat resistant bricks
- Sole boards for burning ceramics, bricks, etc.
- Cover coat materials for automotive heat insulation

### VERMOSUL Sheet-P Applications

- Sealing materials for use in combustion gas for heating

* Please contact us when this material is used for other applications.

### Physical Properties

| Properties | | Unit | VERMOSUL Sheet-S | VERMOSUL Sheet-P |
|---|---|---|---|---|
| Maximum Service Temperatures | | °C | 800 | 800 |
| Bulk Density | | kg/m³ | 850 | 850 |
| Tensile Strength | | MPa | 1.5 | 1.7 |
| Ignition Loss | 850°C×30min | % | 10 | 15 |
| Compression Rate | 6.86MPa | % | 25 | 15 |
| Compressive Recovery Ratio | 6.86MPa | % | 25 | 35 |
| Moisture Content | | % | 2 | 4 |
| Thermal Conductivity | 400°C<br>600°C | W/(m·K) | 0.08<br>0.09 | 0.09<br>0.10 |

* These figures are test results and should not be used for specification purposes.



## TOMBO™ No.6760-A

## VERMOFLEX™-A

800 ℃

VERMOFLEX is a heat-expandable and fire-resistant sheet made of a mixture of ceramic fiber and heat-expandable and inorganic material with a small amount of both organic and inorganic binders through the paper making process. VERMOFLEX expands approximately four times in thickness when heated.
(Heated in non load-bearing condition)

Before expansion

After expansion

### Advantages

- Stable expandability
- Excellent in handling
- Easy to cut with a cutter
- Excellent in thermal insulation
- High thermal shock resistance

### Applications

- Heat sealing materials
- Thermal buffer

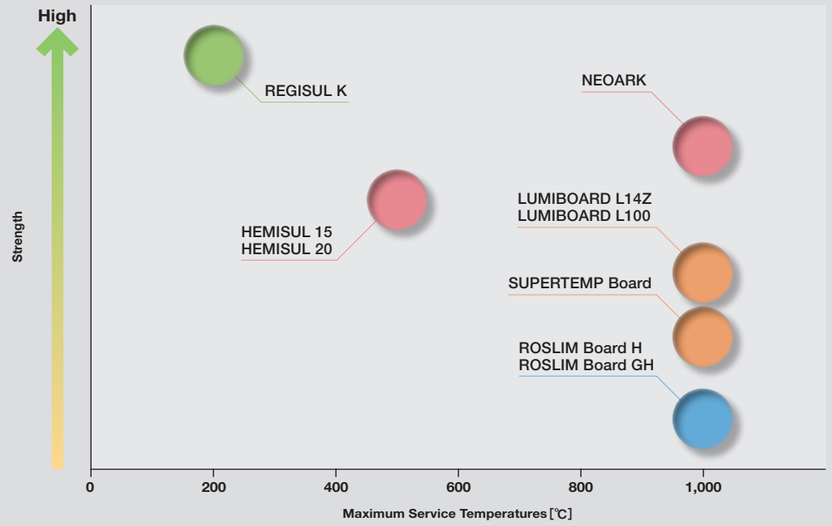
### Physical Properties

| Properties | Unit | VERMOFLEX-A |
|---|---|---|
| Maximum Service Temperatures | °C | 800 |
| Bulk Density<br>Room temperature<br>850°C×30min (after expansion) | kg/m³ | <br>500<br>100 |
| Expansion Ratio<br>850°C×30min (after expansion) | % | Approximately 300 |
| Temperature at which expansion starts | °C | 400 |
| Temperature at which outstanding expansion occurs | °C | 540 |
| Ignition Loss<br>850°C×30min (after expansion) | % | 16 |
| Thermal Conductivity<br>25°C (before expansion)<br>800°C (after expansion) | W/(m·K) | <br>0.05<br>0.15 |

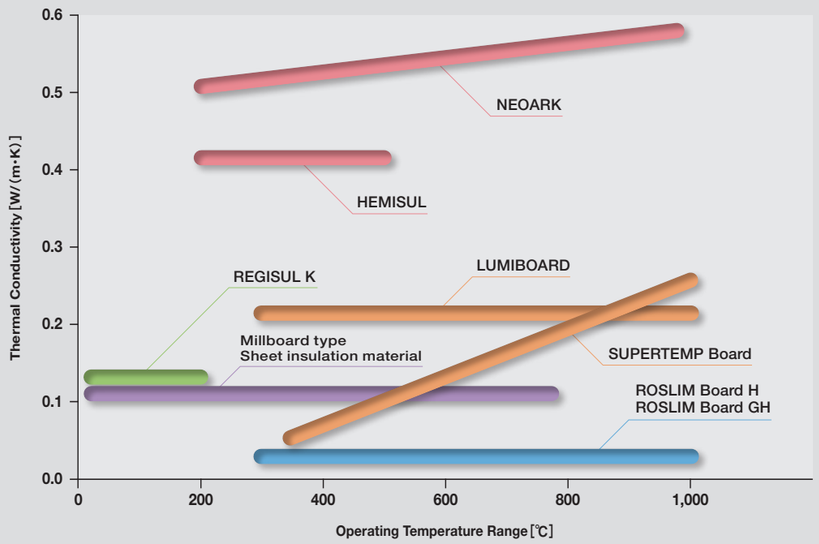
* These figures are test results and should not be used for specification purposes.

## Physical Property Image

■ Bending Strength




■ Thermal Conductivity




## Standard thickness, dimensions and packaging Information

### Cement type

| TOMBO No. / Product Name | 6840-15 HEMISUL 15 | 6840-20 HEMISUL 20 |
|---|---|---|
| Standard Dimensions (mm) | 900 × 1,210 | |
| Standardmm Thickness (mm) | 5、6、8、10、12、13、15、16、18、20、25、30、40、50、75 | 6、10、12、15、16、20、30 |

* HEMISUL 20 is limited to a maximum thickness of 30 mm.
* The master board that will actually be delivered is molded, and its dimensions are 910 × 1,220.

| TOMBO No. / Product Name | 6850 NEOARK |
|---|---|
| Standard Dimensions (mm) | 400 × 500 |
| Standardmm Thickness (mm) | 3、5、10、15、20、25、30、35、40 |

### Calcium silicate type

| TOMBO No. / Product Name | 4720-L14Z LUMIBOARD L14Z | 4720-L100 LUMIBOARD L100 |
|---|---|---|
| Standard Dimensions (mm) | 1,260 × 1,275、1,260 × 2,550 | |
| Standardmm Thickness (mm) | 12.7、19.1、25.4、28.5、31.8、38.1、44.5、50.8、63.5、76.2、101.6 | |

* For a thickness of 63.5 mm or more, it will be an unground product.

| TOMBO No. / Product Name | 4900 SUPERTEMP Board |
|---|---|
| Standard Dimensions (mm) | 150 × 610、303 × 610 |
| Standardmm Thickness (mm) | 25、30、35、40、45、50、60、65、75 |

### Low thermal conductivity type

| TOMBO No. / Product Name | 4350-H ROSLIM Board H | 4350-GH ROSLIM Board GH |
|---|---|---|
| Standard Dimensions (mm) | 600 × 900 | |
| Standardmm Thickness (mm) | 25、50 | |

* Machining into various shapes is also available upon request.
* Please contact us regarding other thicknesses.

### Resin type

| TOMBO No. / Product Name | 6870-K REGISUL K |
|---|---|
| | REGISUL K is offered as a processed product. We therefore ask that you contact us when you wish to make an order. |

### Millboard type

| TOMBO No. / Product Name | 6702 NA Millboard | | | | | |
|---|---|---|---|---|---|---|
| Standard Dimensions (mm) | 1,000 × 1,000 | | | | | |
| Standardmm Thickness (mm) | 1.5 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 |
| Quantity per package (sheet) | 50 | 38 | 25 | 19 | 15 | 12 |

| TOMBO No. / Product Name | 6750-S VERMOSUL Sheet-S | | | 6750-P VERMOSUL Sheet-P | | |
|---|---|---|---|---|---|---|
| Standard Dimensions (mm) | 1,000 × 1,000 | | | | | |
| Standardmm Thickness (mm) | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 |
| Quantity per package (sheet) | 70 | 50 | 38 | 25 | 19 | 15 | 12 |

| TOMBO No. / Product Name | 6760 VERMOFLEX-A | | |
|---|---|---|---|
| Standard Dimensions (mm) | 1,000 × 1,000 | | |
| Standardmm Thickness (mm) | 2.0 | 3.0 | 4.0 |
| Quantity per package (sheet) | 38 | 25 | 19 |

### Precautions for handling glass filament products

**⚠ CAUTION**

- Do not use a product for any other than the purpose described in the catalog and specification.
- Store products indoor at ordinary temperature and humidity, and strictly avoid to get wet.
- For disposal, follow local regulations.

**Since this product contains continuous glass filament, please observe the following cautions.**

Contact to continuas glass filament may cause itching and/or inflammation of skin, eyes, a throat or a nose.

- Wear respirator, protective goggles, protective gloves and work clothes with long sleeves.
- Wash hands with warm water and soap and rinse mouth every time after handling.
- Waste by cutting shall be put in a waste bag immediately in order to prevent from scattering of the dust.
- Wash the work clothes separately from other clothing.
- Get medical advice/attention, when an itch, a pain continue.

GF2002A_E

July 2021

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### India

**NICHIAS INDUSTRIAL PRODUCTS PRIVATE LTD.**

### Czech

**NICHIAS AUTOPARTS EUROPE a.s.**

### Mexico

**NAX MFG, S.A.DE C.V.**

**⚠ Cautions**

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- Because the stated material values may vary according to actual usage environments or circumstances, please consider such figures as indications for reference.
- The content of the catalog explains the features of the products when they are used alone. When actually using the products, please start using them after testing them under the actual usage environment.
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