



## INTRODUCTION AND FEATURES OF COMPANY

We are experts in manufacturing and supplying plastics, ceramics and heat insulation materials products.

Since 1968, our company has been a leader in manufacturing products using plastics, ceramics and heat insulation materials.

We are located in the city of Kobe, home to one of the most magnificent harbors in Japan.

Our company is committed to being a premier manufacturer of high-quality plastics, ceramics and heat insulation materials products.

Based on our customer's designs, we provide custom fabricated parts for the general manufacturing sector including machinery parts and electrical insulation parts.

We use machine tools such as Machining Centers and NC lathes to process a variety of plastics, ceramics and heat insulation materials.



## THE MAIN FEATURES OF OUR SERVICES

1. Our product line encompasses a wide range of plastics, ceramics and heat insulation materials and we are especially adept at using materials that are difficult to machine including the following;
  - A) Composite of glass fiber or carbon fiber and plastics (FRP, GFRP and CFRP).
  - B) Heat insulation and heat resistant materials (rigid heat insulation boards that are generally made of glass fiber, cement and mica as the main raw material)
  - C) Fine ceramics
2. Since we work with a diverse range of plastics, ceramics and heat insulation materials, we are able to supply products using most materials.
3. The production of most shapes is feasible with the use of various machines such as Machining Centers, NC lathes, grinders, and gear cutters (including subcontracted facilities).
4. We can arrange production of quantities ranging from 1 to 50,000.
5. Our vast inventory of raw materials dramatically reduces lead times.
6. Our extensive knowledge of various plastics, ceramics and heat insulation materials properties brings customers ideal solutions including optimal material selection.



# MAIN EQUIPMENT

Machining Center

NC Lathe

Lathe

Milling Machine

Drilling Machine

NC Drill Processing Machine

Tapping Machine

Running Saw (cutting machine)

Sawing Machine (cutting machine)

Drying Furnace

CAD/CAM



## BASIC COMPANY INFORMATION

Capital : 10,000,000 JPY

Annual sales : 400,000,000 JPY

Number of Employees : 20

Established : 1968

Representative : (Mr.) Masahiro Toyoda, President



Address : Kobe Compound Industrial Park, 2-2-4 Mitsugaoka, Nishiku,  
Kobe 651-2228, JAPAN

Tel : 81-78-995-3393

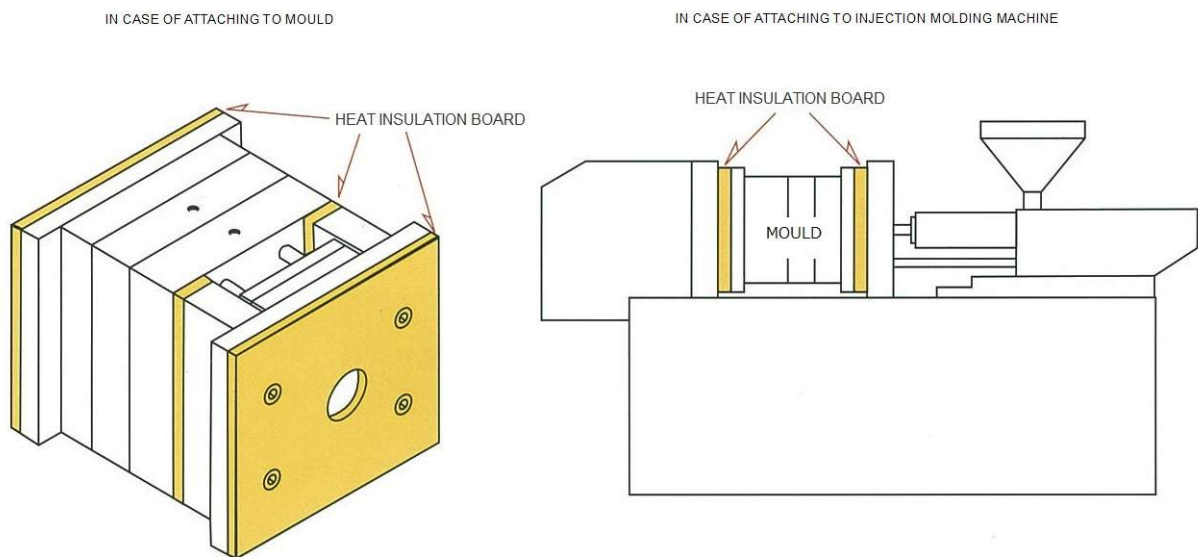
Fax : 81-78-995-3390

E-mail : [info@yutakasangyo.co.jp](mailto:info@yutakasangyo.co.jp)

URL : <http://www.yutakasangyo.co.jp>

# HEAT INSULATION BOARD FOR PLASTIC/RUBBER INJECTION MOULD(MOLD) AND PLASTIC/RUBBER INJECTION MACHINE

## EXAMPLE OF APPLICATION



## EFFECT OF HEAT INSULATION BOARD

1. Since the temperature distribution of a mould(mold) becomes fixed, the quality of products, such as accuracy of dimension and appearance, improves.
2. The operating ratio of an injection molding machine improves by shortening the waiting time of a mould(mold) temperature rise.
3. By reduction of the heat conduction from a mould(mold) to an injection molding machine, distortion of an injection molding machine decreases and the durability of an injection molding machine improves.
4. As the heat dissipation from the die plate (platen) of an injection molding machine is decreased, it becomes energy saving.

## OUTLINE OF HEAT INSULATION BOARD

1. Several kinds of heat insulation boards from budget-prices type to high mechanical strength and high heat resistant type indicated in the table below can be supplied.
2. High mechanical strength and can be used as a structural material .
3. Since it does not contain asbestos, it can be used as a replacement for asbestos cement board.
4. Based on the information of required characteristics, environment, and other applications, the optimum material will be selected.

## Characteristics of Heat Insulation Boards

	Units	HIB-A	HIB-B	HIB-C	HIB-D	HIB-E
Heat Resistant Temperature	°C	250	500	400	200	200
Coefficient of Thermal Conductivity	W/m · k	0.3	0.3	0.3	0.3	0.13
Thermal Expansion Rate	1/°C	$6.6 \times 10^{-6}$	$9.0 \times 10^{-6}$	$2.3 \times 10^{-5}$	$6.5 \times 10^{-5}$	$28 \times 10^{-6}$
Compressive Strength	Mpa	150~200	120~150	420~480	500~580	300
Bending Strength	Mpa	100~150	45~55	120~130	450~540	200
Specific Gravity		2.2	2.2	2	1.8	1.4
Water Absorption	%	2~5	4~6	0.1	0.05	0.1
Grade		Standard	High Heat Resistant	High Heat Resistant and High Strength	High Strength	High Heat Insulation

	Units	HIB-F	HIB-G	HIB-H	HIB-I	HIB-J
Heat Resistant Temperature	°C	550	700	1000	300	130
Coefficient of Thermal Conductivity	W/m · k	0.22	0.22	0.14	0.44	0.25
Thermal Expansion Rate	1/°C	$9 \sim 12 \times 10^{-6}$	$9 \sim 12 \times 10^{-6}$			
Compressive Strength	Mpa				108	245~300
Bending Strength	Mpa	130	120	8.8	29.5	105~195
Specific Gravity		2.2	2.1	0.84	1.75	1.4
Water Absorption	%	0.3	0.5		3	1.3
Grade		High Heat Resistant	High Heat Resistant	High Heat Resistant	Low Cost	Low Cost

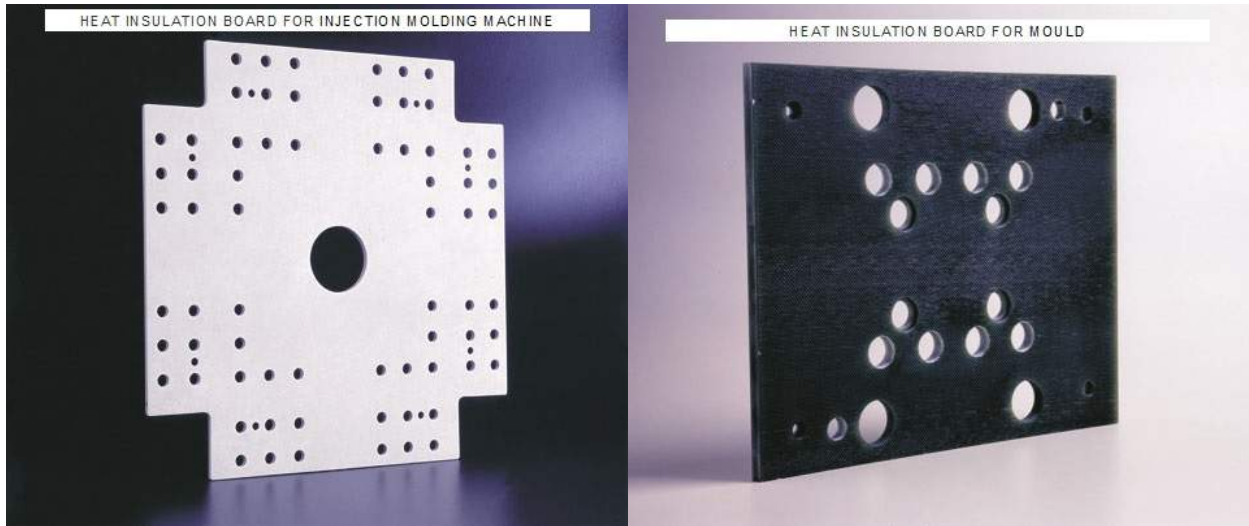
Listed values are measured, it is not a guaranteed value.

Heat resistant temperature is for reference only, and varies depending on the operating conditions.

## DIMENSIONS OF BLANK MATERIAL OF HEAT INSULATION BOARD

1. Thickness : 0.1~100mm
2. Length × Width : 900×1200 mm, 1000×1000 mm, 1000×2000 mm, etc.

Dimensions (thickness, length, width) of the heat insulation board are different for each material.



## DELIVERY FORM OF HEAT INSULATION BOARD

Please choose from among the following three types of the delivery form of heat insulation board.

### 1. FINISHED PRODUCT

Finished product after machining such as cutting, grinding and drilling based on your drawing will be supplied.

### 2. BOARD CUT TO SPECIFIED DIMENSIONS

Board without machining such as drilling, etc. and in the form of simply cutting the material according to the specified dimensions will be supplied.

### 3. BLANK MATERIAL

Blank material without any machining will be supplied.



## MINIMUM ORDER QUANTITY

1 Piece

## DELIVERY TIME

After order confirmation, will be shipped from our factory within 1 to 4 weeks

## PACKAGING DETAILS

Standard protective packaging such as cardboard boxes or wooden crates.

## WORK FLOW FROM INQUIRY TO SHIPPING

Inquiry



Estimate (if necessary, selection of material properties)



Order placement and payment



Confirmation of payment



Production



Inspection



Shipping