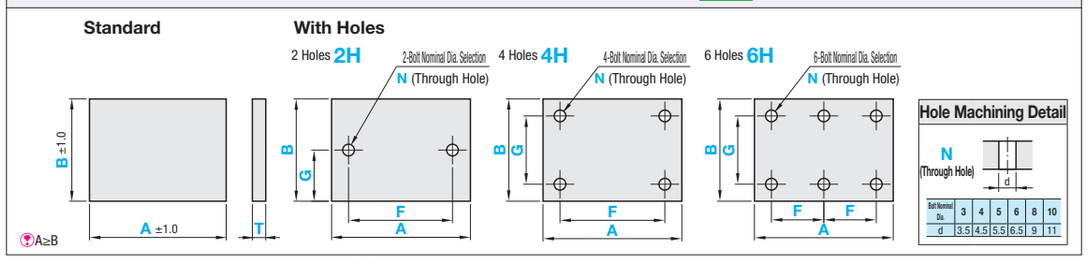
High Temperature Insulation Sheets

Type	Grade	Color	Operating Ambient Temperature
HIPYKH	High Strength	Brown	Room Temp. ~ 180°C
HIPLKH	High Temp. Resistant	White	-80°C ~ 400°C
HIPSKH	Thin, Heat Resistant	Gray	Room Temp. ~ 800°C

RoHS10



Bolt Nominal Dia.	3	4	5	6	8	10
d	3.5	4.5	5.5	6.5	9	11

Standard

Part Number	1mm Increment		Selection
Type	A	B	T
HIPYKH HIPLKH	20~500	20~500	1 2
HIPSKH			1.5 2

With Holes

Part Number		1mm Increment		Selection	0.5mm Increment		Bolt Hole Nominal Dia. Selection
Type	Number of Holes	A	B	T	F	G	N (Through Hole)
HIPYKH HIPLKH	2H 4H 6H	20~500	20~500	1 2	9~491 (2H, 4H Type) 9~245 (6H Type)	5~495 (2H Type) 9~491 (4H, 6H Type)	3 4 5 6 8 10
HIPSKH				1.5 2			

F Dimension Range: For 2H and 4H, d+5≤F≤A-d-5; for 6H, d+5≤F≤A/2-d/2-2.5.
G Dimension Range: For 2H, d/2+2.5≤G≤B-d/2-2.5; for 4H and 6H, d+5≤G≤B-d-5.

Characteristics of HIPSKH

Overview: Inorganic mineral, Fiber, Filler and Binding Agent are main materials. Dried after paper making formation.

Item	Unit	Characteristic Value
Density	kg/m³	900
Tensile Strength	N/mm²	2.45
Compression Rate (6.86MPa)	%	20
Recovery Rate (6.86MPa)	%	35
Thermal Conductivity	W/(m・K) {cal/cm・sec・°C}	0.11 {0.26x10⁻³}

Handle with care as the material is fragile. The above values are references only.
Characteristics of HIPYKH and HIPLKH P.1675

Precision Standards

• T Dimension Tolerance (HIPYKH, HIPLKH)

T	1.0	2.0
	±0.15	±0.25

(HIPSKH)
T:±0.20

Hole Machining Charge

With Holes	Unit Price Bolt Nominal N (Through Hole)
2H	
4H	
6H	

Standard

Part Number - A - B - T
HIPYKH - 300 - 200 - 1

With Holes

Part Number - A - B - T - F - G - Bolt Nominal Dia.
HIPLKH2H - 300 - 200 - 2 - F50 - G50 - N4

The price of Hole Type is Standard Type Unit Price plus Hole Machining Charge.

(Ex.) Part Number - A - B - T - F - G - Bolt Nominal Dia.
HIPLKH2H - 300 - 200 - 2 - F50 - G50 - N4
(Standard Type Unit Price) + (Hole Machining Charge) = Hole Machined Type Unit Price

Standard Type Unit Price (HIPYKH, HIPLKH, HIPSKH)

T	A	Unit Price HIPYKH Qty. 1 ~ 50									
		B20~50	B51~100	B101~150	B151~200	B201~250	B251~300	B301~350	B351~400	B401~450	B451~500
1	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										
2	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										

For orders larger than indicated quantity, please check with WOS.

T	A	Unit Price HIPLKH Qty. 1 ~ 50									
		B20~50	B51~100	B101~150	B151~200	B201~250	B251~300	B301~350	B351~400	B401~450	B451~500
1	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										
2	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										

For orders larger than indicated quantity, please check with WOS.

T	A	Unit Price HIPSKH Qty. 1 ~ 20									
		B20~50	B51~100	B101~150	B151~200	B201~250	B251~300	B301~350	B351~400	B401~450	B451~500
1.5	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										
2	20~ 50		-	-	-	-	-	-	-	-	-
	51~100			-	-	-	-	-	-	-	-
	101~150				-	-	-	-	-	-	-
	151~200					-	-	-	-	-	-
	201~250						-	-	-	-	-
	251~300							-	-	-	-
	301~350								-	-	-
	351~400									-	-
	401~450										-
	451~500										

For orders larger than indicated quantity, please check with WOS.

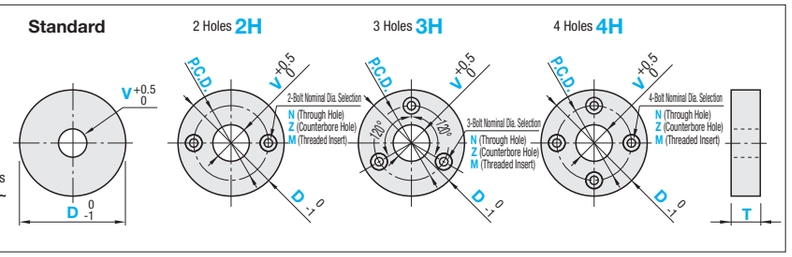
Heat Insulating Plates

Circular Type

RoHS10

ENJHP
ENJHH
ENJHY
ENJHL
ENJHA

Properties
P.1675~



Standard

Part Number			1mm Increment	
Type	T	T Tolerance	D	V
ENJHP (Standard Grade)	5 10 15	±0.05	50~400	0~50 (V≤D-10)
ENJHH (Heat Resistant Grade)	5 10 15	±0.05		
ENJHY (High Strength Grade)	5 10 15	±0.05		
ENJHL (High Temperature Resistant Grade)	5 10 15	±0.05		
ENJHA (High Temperature Insulating Grade)	3 5 10	±0.05		

Hole Machining Detail

N (Through Hole) | Z (Counterbore Hole) | M (Threaded Insert)

Bolt Nominal Dia.	3	4	5	6	8	10
d	3.5	4.5	5.5	6.5	9	11
d₁	6.5	8	9.5	11	14	-
h	4	5	6	7	9	-

Table 1

Bolt Nominal Dia.	3	4	5	6	8
d	3.5	4.5	5.5	6.5	9
L	3 4.5 6	4 6 8	5 7.5 10	6 9 12	8 12 -

Ordering Code Ex.) M4-L6
L≤T-1
For details of Threaded Insert HLTS, See P.271

When L+5<T, machined holes will be blind ones.

With Holes

Part Number			1mm Increment			Bolt Hole Nominal Dia. Selection			
Type	Number of Holes	T	D	V	P.C.D.	Through Hole	Counterbore Hole	Threaded Insert	
						N	Z	M	L
ENJHP (T≥5) ENJHH (T≥5) ENJHY (T≥5) ENJHL (T≥5) ENJHA (T≤10)	2H 3H 4H	3	50~400	0~50 (V≤D-10)	20~390*	3 4 5 6 8 10	-	-	-
		5						3 4	Select from Table 1
		10					4 5 6	3 4 5 6	
		15					4 5 6 8	3 4 5 6 8	

For Hole Type, select N (through hole), Z (counterbore hole), or M (threaded insert) and L (insert length).
* P.C.D. V+5+d(d₁)≤P.C.D.≤D-5-d(d₁) (d for through holes and thread insert; d₁ for counterbore and countersink)

Ordering Example

Standard

Part Number - D - V
ENJHP5 - 300 - 50

With Holes

Part Number - D - V - P.C.D. - Bolt Nominal Dia. - L
ENJHP2H5 - 300 - 50 - 80 - N3
ENJHP2H5 - 300 - 50 - 80 - M3 - L3

Hole Machining Charge

With Holes	Unit Price Bolt Nominal		
	N (Through Hole)	Z (Counterbore Hole)	M (Threaded Insert)
2H			
3H			
4H			

The price of Hole Type is Standard Type Unit Price plus Hole Machining Charge.

(Ex.) Part Number - D - V - P.C.D. - Bolt Nominal Dia. - L
ENJHP2H10 - 350 - 50 - 200 - M5 - 7.5

(Standard Type Unit Price) + (Hole Machining Charge) = Hole Machined Type Unit Price

Part Number		Unit Price						
Type	T	D50~100	D101~150	D151~200	D201~250	D251~300	D301~350	D351~400
ENJHP (Standard Grade)	5							
	10							
	15							
ENJHH (Heat Resistant Grade)	5							
	10							
	15							
ENJHY (High Strength Grade)	5							
	10							
	15							
ENJHL (High Temperature Resistant Grade)	5							
	10							
	15							
ENJHA (High Temperature Insulating Grade)	3							
	5							
	10							