


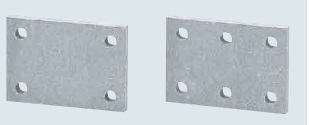
# Heat Insulating Plates

Standard / Heat Resistant Grade

Heat Insulating Plates – Standard



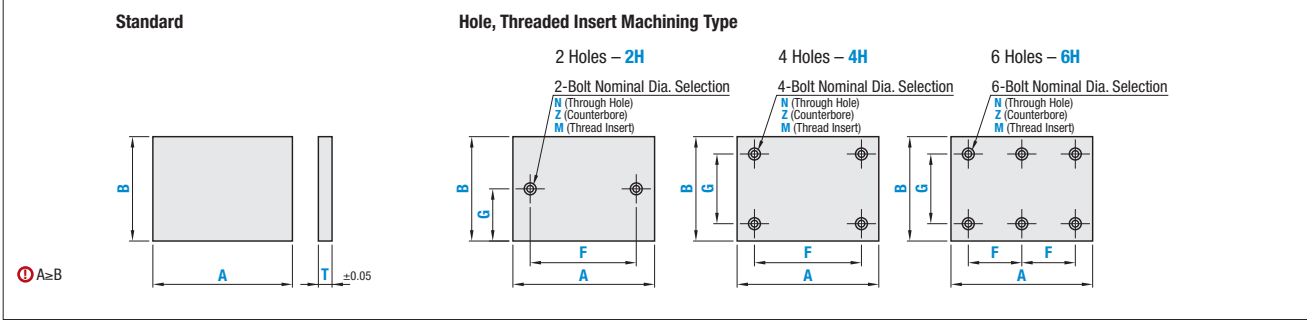
Heat Insulating Plates – Heat-Resistance






Type	Tolerance Selection	Dim. Tol. of A & B	Grade	Color	Operating Ambient Temp.
HIPA	Not Specified	+1.0 0	Standard	White	Room Temp. ~220°C
	P	±0.3			
HIPHA	Not Specified	+1.0 0	Heat Resistance	Gray	Room Temp. ~500°C
	P	±0.3			

RoHS 10

Ⓢ Properties and Machining Conditions P.3779.



Part Number		1 mm Increment		T
Type	Tolerance Selection	A	B	
HIPA HIPHA	Not Specified	20-800	20-600	3 5 10 15
	P	20-200	20-200	5 10

Hole Machining Detail		
N Through Hole	Z Counterbore Hole	M Thread Insert
		

Bolt Nominal Dia.	3	4	5	6	8	10
d	3.5	4.5	5.5	6.5	9	11
d <sub>i</sub>	—	8	9.5	11	14	—
h	—	5	6	7	9	—

Table 1

Bolt Nominal Dia.	3	4	5	6	8	10
d	3.5	4.5	5.5	6.5	9	11
L	3 4.5 6	4 6 8	5 7.5 10	6 9 12	8 12 —	10 15 —

Order Number: (Ex.) M4-L6  
 Ⓢ L ≤ T  
 Ⓢ For details of thread insert HLTS, refer to P.2461.

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

## Hole, Threaded Insert Machining Type

Part Number		1 mm Increment		Selection T	0.5 mm Increment		Hole Machined Bolt Nominal Diameter				
Type	Tolerance Selection	A	B		F	G	Through Hole N	Counterbore Hole Z	Threaded Insert M		L
HIPA HIPHA	Not Specified	20-800	20-600	3	9-791 2H and 4H Type	5-595 2H	3	—	—		—
				5					3 4		
				10					4 5 6		
	15	4 5 6 8									
P	20-200	20-200	5	9-191 2H and 4H Type	5-195 2H	3	—	3 4		Select from Table above	
			10					4 5 6			

Ⓢ F Dimension Range: For 2H and 4H,  $d(d_i)+5 \leq F \leq A-d(d_i)-5$ ; for 6H,  $d(d_i)+5 \leq F \leq A/2-d(d_i)/2-2.5$ .  
 Ⓢ G Dimension Range: For 2H,  $d(d_i)/2+2.5 \leq G \leq B-d(d_i)/2-2.5$ ; for 4H, 6H,  $d(d_i)+5 \leq G \leq B-d(d_i)-5$ . (d for through hole, threaded insert, d<sub>i</sub> for counterbore)  
 Ⓢ For Hole Type, select N (through hole), Z (counterbore hole), and Threaded Insert Type, select M (thread insert) or L (insertion length).

# Heat Insulating Plates

Standard / Heat Resistant Grade, continued

Part Number Example

Standard

Part Number - A - B - T

HIPAP - 100 - 80 - 5  
 HIPAP - 200 - 100 - 10

Hole, Threaded Insert Machining Type

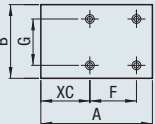
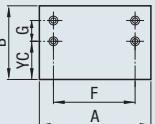
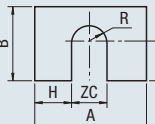
Part Number - A - B - T - F - G - Bolt Nominal Dia. - L

HIPAP2H - 80 - 40 - 10 - F50 - G20 - N3  
 HIPA2H - 300 - 100 - 15 - F200 - G30 - M10 - L10

Part Number Alterations

Part Number - A - B - T - F - G - Bolt Nominal Dia. - (XC / YC / ZC)

HIPAP4H - 100 - 100 - 10 - F60 - G70 - Z6 - XC10  
 HIPA - 100 - 100 - 5 - ZC10-H40-J50

Alterations	Hole Position from Left	Hole Position from Bottom	Slot Hole
Code	XC	YC	ZC
Spec.	 <p>XC = 1 mm Increment                      Ⓢ 5 ≤ XC ≤ 786                      Ⓢ (2H/4H Type)  <math>d(d_i)/2+2.5 \leq XC \leq A-F-d(d_i)/2-2.5</math>                      Ⓢ (6H Type)  <math>d(d_i)/2+2.5 \leq XC \leq A-2F-d(d_i)/2-2.5</math></p>	 <p>YC = 1 mm Increment                      Ⓢ 5 ≤ YC ≤ 586                      Ⓢ <math>d(d_i)/2+2.5 \leq YC \leq B-G-d(d_i)/2-2.5</math>                      Ⓢ Not applicable to 2H Types.</p>	 <p>ZC = 5 mm Increment                      H-J = 1 mm Increment                      Ⓢ 10 ≤ ZC ≤ 120                      Ⓢ 10 ≤ H ≤ A-ZC-5                      Ⓢ 0 ≤ J ≤ B-(ZC/2)-5                      Ⓢ When Hole Type is specified, it is required that the distance between hole and slot hole to be 5mm or more.</p>