PBT Plates / ABS Plates

■PBT excels in insulation and machinability.
■ABS excels in machinability and enables adhesive work process.

* For Details of color samples and features, see **P.951.**

■PBT Plates

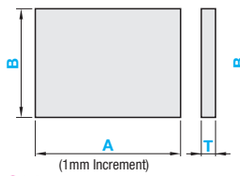
■ABS Plates

Properties P.953

RoHS10

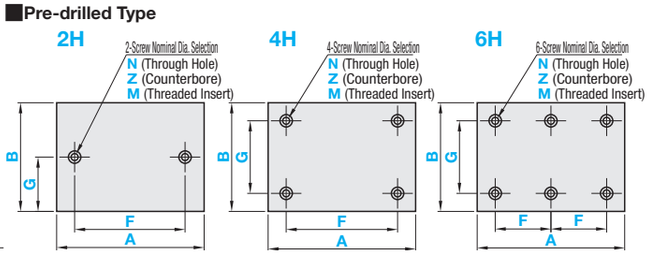
Type	Material	Color	Operating Ambient Temperature
NPBT	PBT	White	Ambient Temp. ~ 120°C
NABS	ABS	Natural Color	Ambient Temp. ~ 50°C

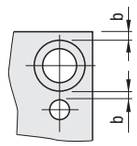
■Standard Type



A≥B

■Pre-drilled Type

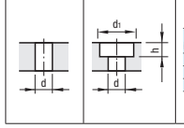




Nominal Dia.	b (Min. Value)
3~10	2.5

Hole Machining Details

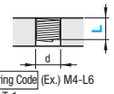
N (Through Hole), Z (Counterbore Hole)



N (Through Hole), Z (Counterbored Hole) Details

Screw 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	-

M (Threaded Insert)



Ordering Code (Ex.) M4-L6

L≤T-1

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

Table 1 M (Threaded Insert) Details

Screw 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 16	10 15 20

Finish	4 Sides		Upper-lower Surface	
	Drilling Method	Finish Symbol	Drilling Method	Finish Symbol
Circular Sawing	Circular Sawing	✓	Material	~

M Material PBT Plate: Polybutylene Terephthalate,
ABS Plate: Acrylic Nitrile, Butadiene, Styrene

■Standard Type

Part Number	A	B	T
Type	1mm Increment		Selectable
NPBT (PBT Plates)	20~300	20~300	10, 15, 20
NABS (ABS Plates)	20~500	20~400	5, 6, 8, 10, 15, 20

• T Dimension Tolerance, Rate of Camber and Torsion

T	T Dimension Tolerance NPBT	T Dimension Tolerance NABS	Rate of Camber and Torsion per 1,000mm NPBT	Rate of Camber and Torsion per 1,000mm NABS
5	-	±0.5	-	1.5% or Less
6		±0.6		
8				
10	0~+1.5	±0.8	1.5% or Less	
15	0~+2.5	0~+2.5		1.0% or Less
20			1.0% or Less	

• Dimension Tolerance of A and B

A, B Unit: mm	A, B Dimension Tolerance
~99	±0.5
100~250	±0.75
251~	±1.0

■Pre-drilled Type

Part Number		A	B	T	F	G	Pre-drilled Hole Nominal Dia. Through Hole N	Counterbore Hole Z	Threaded Insert M	L
Type	Number of Holes	1mm Increment		Selectable	0.5mm Increment					
NPBT (PBT Plates)	2H 4H 6H	20~300	20~300	10	6~291.5 (2H, 4H) 6~145.5 (6H)	4.5~295.5 (2H) 6~291.5 (4H, 6H)	3 4 5 6 8 10	4 5 6	3 4 5 6 8	(Threaded Insert Length) Select from Table 1
				15				4 5 6 8	3 4 5 6 8 10	
				20				4 5 6 8	3 4 5 6 8 10	
NABS (ABS Plates)		20~500	20~400	5	6~491.5 (2H, 4H) 6~245.5 (6H)	4.5~395.5 (2H) 6~391.5 (4H, 6H)		-	3 4	
				6				3	3 4 5	
				8				3 4 5	3 4 5 6	
				10				3 4 5 6	3 4 5 6 8	
				15				4 5 6 8	3 4 5 6 8 10	
				20				4 5 6 8	3 4 5 6 8 10	

Dimension F Specification Range : For 2H and 4H, $d(d_1)+2.5 \le F \le A-d(d_1)-5$; for 6H, $d(d_1)+2.5 \le F \le (A-d(d_1)-5)/2$.
Dimension G Specification Range : For 2H, $d(d_1)/2+2.5 \le G \le B-d(d_1)/2-2.5$; for 4H and 6H, $d(d_1)+2.5 \le G \le B-d(d_1)-5$.
(d for through hole and threaded insert, d_1 for counterbore)
For Pre-drilled Type, select N (through hole) or Z (counterbore hole); for Threaded Insert Type, select M (threaded insert) or L (insertion length).

Ordering Example

■Standard Type

Part Number - A - B - T
NPBT - 300 - 200 - 10

■Pre-drilled Type

Part Number - A - B - T - F - G - Screw Nominal Dia. - L
NPBT2H - 200 - 100 - 15 - F50 - G30 - N5
NABS2H - 180 - 100 - 10 - F80 - G60 - M5 - L5

■Standard Type Unit Price (NPBT)

Type	T	A	Unit Price B 20~50	51~100	101~150	151~200	201~250	251~300
NPBT	10	20~50		-	-	-	-	-
		51~100			-	-	-	-
		101~150				-	-	-
		151~200					-	-
		201~250						-
		251~300						
	15	20~50		-	-	-	-	-
		51~100			-	-	-	-
		101~150				-	-	-
		151~200					-	-
		201~250						-
		251~300						
	20	20~50		-	-	-	-	-
		51~100			-	-	-	-
		101~150				-	-	-
		151~200					-	-
		201~250						-
		251~300						

■Hole Machining Charge

Pre-drilled Type	Hole Machining Charge N (Through)	Z (Counterbore Hole)	M (Threaded Insert)
2H			
4H			
6H			

■Price Calculation Method for Pre-drilled Type

Pre-drilled Type Price = Standard Type Unit Price + Hole Machining Charge

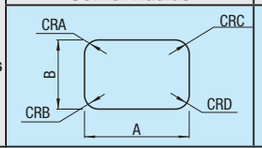
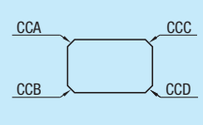
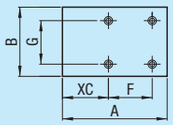
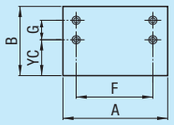
(Ex.) Part Number - A - B - T - F - G - Screw Nominal Dia. >>
NPBT2H - 300 - 200 - 10 - F200 - G100 - Z6
(Standard Type Unit Price) + (Hole Machining Charge) = Pre-drilled Type Price

■Standard Type Unit Price (NABS)

Type	T	A	Unit Price B 20~50	51~100	101~150	151~200	201~250	251~300	301~350	351~400
NABS	5	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								
	6	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								
	8	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								
	10	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								
	15	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								
	20	20~50		-	-	-	-	-	-	-
		51~100			-	-	-	-	-	-
		101~150				-	-	-	-	-
		151~200					-	-	-	-
		201~250						-	-	-
		251~300							-	-
		301~350								-
		351~400								
		401~450								
		451~500								

Alterations

Part Number - A - B - T - F - G - Screw Nominal Dia. - (XC, YC, CRA ··· etc.)
NPBT - 200 - 100 - 15 - CRA10 - CRB10
NABS4H - 200 - 200 - 8 - F100 - G140 - Z4 - XC10

Alterations	Corner Radius	Corner Cut	Hole Position from Left	Hole Position from Bottom
				
Code	CRA, CRB, CRC, CRD	CCA, CCB, CCC, CCD	XC	YC
Spec.	Adds radius to any corner. R = 5mm Increment 10≤A(B)-R(2R) 5≤CRA, CRB, CRC, CRD≤100 Ordering Code (Ex.)Adds R10 at the corner of A and C. CRA10-CRC10 Applicable only when standard type circular sawing, upper-lower surface milling, etc. (2F) is selected.	Cuts any corners. 5 ≤ Corner Cut ≤ 50 5mm Increment Ordering Code (Ex.) When the corners of A and D are cut by C5···→ CCA5-CCD5 Applicable only when standard type circular sawing, upper-lower surface milling, etc. (2F) is selected.	XC = 0.5mm Increment (2H, 4H Type) $d(d_1)/2+2.5 \le XC \le A-F-d(d_1)/2-2.5$ (6H Type) $d(d_1)/2+2.5 \le XC \le A-2F-d(d_1)/2-2.5$	YC = 0.5mm Increment $d(d_1)/2+2.5 \le YC \le B-G-d(d_1)/2-2.5$ Not available for 2H.