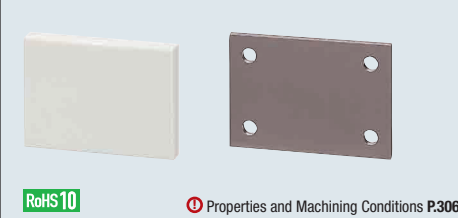


PBT Plates / Unilate® (Free-Cutting Resin) Plates

PBT excels in insulation and machinability.
Unilate® (Free-Cutting Resin Plate) excels in heat resistance and insulation.

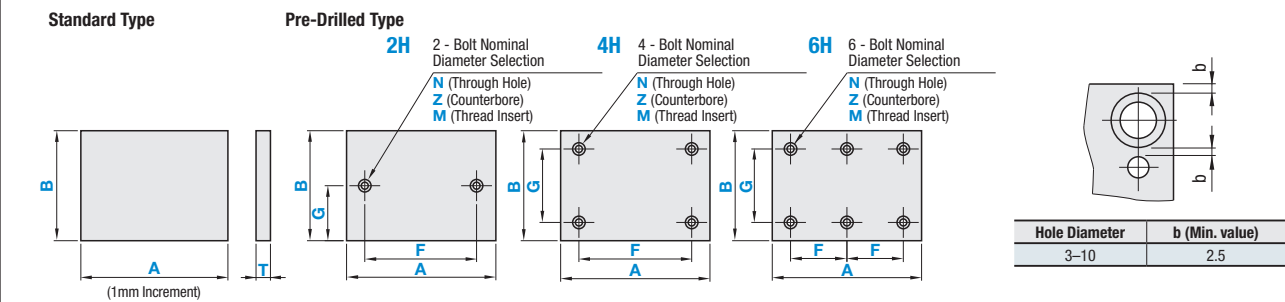
*Details of color samples and features, see P.3070

PBT Plates Unilate® - Free-Cutting Resin Plates



Type	Materials	Color	Operating Ambient Temperature
NPBT	PBT Polybutylene Terephthalate	White	Ambient Temp.: -120°C
YCA	Unilate® (Free-Cutting Resin)	Natural Brown	
PYCA	Antistatic PET, PET300ESD	Black	Room Temp.: -120°C

Unilate® is a registered trademark of Unilite Ltd.



Drilling Details																																																																						
N (Through hole)	Z (Counterbore Hole)	N (Through Hole) Z (Counterbored Hole) Details	M (Thread Insert)																																																																			
		<table border="1"> <thead> <tr> <th>Bolt Nominal Dia.</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>8</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>d</td> <td>3.5</td> <td>4.5</td> <td>5.5</td> <td>6.5</td> <td>9</td> <td>11</td> </tr> <tr> <td>d₁</td> <td>6.5*</td> <td>8</td> <td>9.5</td> <td>11</td> <td>14</td> <td>—</td> </tr> <tr> <td>h</td> <td>4*</td> <td>5</td> <td>6</td> <td>7</td> <td>9</td> <td>—</td> </tr> </tbody> </table>	Bolt Nominal Dia.	3	4	5	6	8	10	d	3.5	4.5	5.5	6.5	9	11	d ₁	6.5*	8	9.5	11	14	—	h	4*	5	6	7	9	—	<table border="1"> <thead> <tr> <th colspan="4">Table 1 M (Thread Insert) Details</th> </tr> <tr> <th>Bolt Nominal Dia.</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>8</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>d</td> <td>3.5</td> <td>4.5</td> <td>5.5</td> <td>6.5</td> <td>9</td> <td>11</td> </tr> <tr> <td>L</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td></td> <td>4.5</td> <td>6</td> <td>7.5</td> <td>9</td> <td>12</td> <td>15</td> </tr> <tr> <td></td> <td>6</td> <td>8</td> <td>10</td> <td>12</td> <td>16</td> <td>20</td> </tr> </tbody> </table>	Table 1 M (Thread Insert) Details				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	8	10		4.5	6	7.5	9	12	15		6	8	10	12	16	20
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Finish	4 Sides		Top / Bottom	
	Drilling Method	Finish Symbol	Drilling Method	Finish Symbol
Saw Cut	Saw Cut	✓	Material	—

Material: ABS Resin: Acrylic Nitrile, Butadiene, Styrene
PPS: Polyphenylenesulfide
*Dimensions are for NPBT only.

Standard Type

Part Number	A	B	T
Type	1 mm Increment	Selection	
NPBT PBT Polybutylene Terephthalate Plates	20-300	20-300	10 15 20
PYCA Antistatic PET	20-500 40-300	20-400 40-300	8 10 15 20 25 30 40 50
YCA YCA Unilate® (Free-Cutting Resin)	20-800	20-600	5 10 15

T Dimension Tolerance, Rate of Camber & Torsion

T	T Dimension Tolerance		Rates of Camber & Torsion per 1,000mm
	NPBT	PYCA	
10	0-+1.5	—	1.5% or Less
15	0-+2.5	—	1.0% or Less
5	±0.35	—	1.5% or Less
8	—	±1.4	
10	±3.0	±1.4	
15	±4.0	±2.0	
20, 25	—	±2.0	
35, 40, 50	—	±3.0	1.0% or Less

Dimensional Tolerances of A & B

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

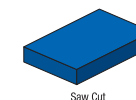
Pre-Drilled Type

Part Number	A	B	T	F	G	4Pre-Drilled Hole Nominal Diameter				
						Through Hole	Counterbore Hole	Thread Insert		
Type	Nominal	1 mm Increment	Selection	0.5 mm Increment		N	Z	M		L
NPBT PBT Polybutylene Terephthalate Plates	20-300	20-300	10	6-291.5 (2H, 4H)	4.5-295.5 (2H)	3	4 5 6	3 4 5 6 8	3 4 5 6 8 10	(Thread Insert Length) Select from Table 1
			20	6-145.5 (4H, 6H)	6-291.5 (4H, 6H)		4 5 6 8	3 4 5 6 8 10		
			5	6-791.5 (2H, 4H)	4.5-595.5 (2H)		—	3 4		
YCA Unilate® (Free-Cutting Resin)	20-800	20-600	10	6-395.5 (6H)	6-591.5 (4H, 6H)	4	4 5 6	3 4 5 6 8 10	3 4 5 6 8 10	
			15	6-395.5 (6H)	6-591.5 (4H, 6H)		4 5 6 8	3 4 5 6 8 10		
			8	6-491.5 (2H, 4H)	4.5-395.5 (2H)		4 5 6	3 4 5 6 8		
PYCA Antistatic PET	20-500	20-400	10	6-491.5 (2H, 4H)	4.5-395.5 (2H)	5	4 5 6 8	3 4 5 6 8 10	3 4 5 6 8 10	
			15	6-245.5 (6H)	6-391.5 (4H, 6H)		4 5 6 8	3 4 5 6 8 10		
			20	6-245.5 (6H)	6-391.5 (4H, 6H)		4 5 6 8	3 4 5 6 8 10		
			25			6	4 5 6 8	3 4 5 6 8 10	3 4 5 6 8 10	
			30				8	4 5 6 8	3 4 5 6 8 10	3 4 5 6 8 10
						10		4 5 6 8	3 4 5 6 8 10	3 4 5 6 8 10
								4 5 6 8	3 4 5 6 8 10	3 4 5 6 8 10

Dimension F Specification Range: For 2H and 4H, $d(d_1)/2+2.5 \leq F \leq A-d(d_1)-5$; for 2HL, $d(d_1)/2+2.5 \leq F \leq A-d(d_1)/2-2.5$; for 6H, $d(d_1)+2.5 \leq F \leq (A-d(d_1)-5)/2$.
Dimension G Specification Range: For 2H, $d(d_1)/2+2.5 \leq G \leq B-d(d_1)/2-2.5$; for 2HL, 4H and 6H, $d(d_1)+2.5 \leq G \leq B-d(d_1)-5$. (d for through hole, thread insert, d₁ 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).

PBT Plates / Unilate® (Free-Cutting Resin) Plates

continued



Part Number Example	Standard Type
	Part Number - A - B - T
	NPBT - 300 - 200 - 10
	YCA - 300 - 200 - 10

Part Number	Pre-Drilled Type
	Part Number - A - B - T - F - G - Bolt Nominal Diameter - L
	NPBT2H - 200 - 100 - 15 - F50 - G30 - N5
	YCA2H - 180 - 100 - 10 - F80 - G60 - M5 - L5

Part Number Alterations	Part Number	Alterations
	YCA	- 200 - 100 - 15 - F100 - G140 - N4 - CRA10-CRC10
	YCA4H	- 200 - 200 - 10 - 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
Spec.	Adds radius to any corner. R = 5 mm 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 10 ≤ A-C(2C) or B-C(2C) 5 mm 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 = 0.5 mm Increment (2H, 4H Type) $d(d_1)/2+2.5 \leq XC \leq A-F-d(d_1)/2-2.5$ (6H Type) $d(d_1)/2+2.5 \leq XC \leq A-2F-d(d_1)/2-2.5$	YC = 0.5 mm Increment $d(d_1)/2+2.5 \leq YC \leq B-G-d(d_1)/2-2.5$ Not available for 2H