Potting Boxes (1596 Series)

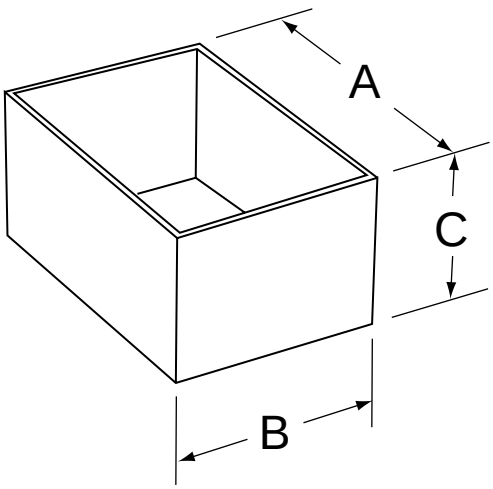
Plastic



Part Number	Units	Dimensions		
		A	B	C
1596B109	inch	.46	.46	.35
	mm	12	12	9
1596B110	inch	.85	.55	.46
	mm	22	14	12
1596B101	inch	.98	.79	.59
	mm	25	20	15
1596B112	inch	.98	.98	.98
	mm	25	25	25
1596B102	inch	1.18	.79	.59
	mm	30	20	15
1596B111	inch	1.18	1.18	.79
	mm	30	30	20
1596B103	inch	1.57	1.37	.79
	mm	40	35	20
1596B107	inch	1.57	1.57	.79
	mm	40	40	20
1596B113	inch	1.57	1.57	1.15
	mm	40	40	29
1596B104	inch	1.96	1.57	1.18
	mm	50	40	30
1596B108	inch	1.96	1.96	1.18
	mm	50	50	30
1596B105	inch	2.95	1.98	1.39
	mm	75	50	35
1596B114	inch	2.95	2.95	1.57
	mm	75	75	40
1596B115	inch	3.50	2.52	1.28
	mm	89	64	32.5
1596B106	inch	3.93	2.36	.99
	mm	100	60	25

KEY FEATURES

- One piece molded construction.
- Molded from black general purpose ABS plastic.
- Temperature rated -20º to +94º C.
- 1.0 mm (0.04”) wall thickness.



Technical Information

Properties of Plastic Materials							
Property	**Units**	**Test Method**	**ABS**	**ABS Flame Retardant**	**Polystyrene**	**Poly-carbonate**	**Fiber Reinforced Polyester**
Mechanical Properties							
Tensile strength @ yield	PSI	ASTMD638	5890	5250	3200	10000	6000
Tensile elongation @ break	%	ASTMD638	22	15	50	100	0.5
Tensile modulus	PSI	ASTMD638	290,000	260,000	285,000	810,000	1,600,000
Flexural modulus	PSI	ASTMD790	290,000	260,000	285,000	810,000	1,600,000
Flexural Strength	PSI	ASTMD790	8200	6800	18100	17000	15000
Izon impact (1/8") - notched	FT LB/IN	ASTMD256	4.5	3.9	2.1	16	4.5
Specific gravity - solid	_	ASTMD792	1.04	1.22	1.17	1.2	1.95
Hardness, Rockwell R	R	ASTMD785	100	100	40	118	40 (Bercol Scale)
Thermal Properties							
Melt index	GM/10-MIN	ASTMD1288	3	4	3	7	-
Heat Deflection Temp							
@455 KPA	ºF(C)	ASTMD648	205(96)	185(85)	188(87)	284(140)	392(200)
@1820 KPA	ºF(C)	ASTMD648	181(83)	165(74)	-	268(131)	-
Vican softening temperature	ºF(C)	ASTMD1525	217(103)	190(88)	203(95)	310(154)	-
Flame characteristics	-	UL94	HB	VO	HB	HB	VO
Thermal conductivity	W/M.C	ASTMC177	0.19	-	0.16	0.19	0.001
Electrical Properties							
Specific volume resistance	Ohm/cm	ASTMD257	10 E15	10 E13	10 E16	10 E16	10 E15
Dielectric strength	V/MIL	ASTMD149	140	400	215	160	400
Other Properties							
Water absorbtion	%	ASTMD570	0.3	-	0.1	0.15	0.16

* Material classified 94HB is combustible!
Values noted above are typical values for reference only. These values may vary between material manufacturers and within normal manufacturing tolerances.

Resistance of material to different media				
Material	**Polystyrene**	**ABS**	**Flame Retard. ABS**	**Poly-carbonate**
Gasoline	-	0	0	-
Diesel Oil	-	+	+	0
Sea Water	+	+	+	-
Hydrochloric Acid, 10%	+	+	0	+
Weak Alkaline	+	+	+	-
Strong Alkaline Solution	+	+	+	-
Atmospheric Influences	0	0	0	+
Lactic Acid	+	+	+	+
Acetone	-	-	-	-
Value at room temperature: + = stable, 0 = relatively stable, - = unstable				
Simultaneous exposure to different media may alter the resistive properties of a material! To be safe, it is advisable to test the cases for sufficient resistance to the material under the condition of the specific application.				

Flammability Rating

94 V-O
Test samples are extinguished within 5 seconds average time. None of the test samples burn longer than 10 seconds. No test samples emit burning particles.

94 V-1
Test samples are extinguished within 25 seconds average time. None of the test samples burn longer than 60 seconds. No test samples emit burning particles.

94 V-2
Similar to 94 V-1, except test samples emit burning particles during the test. The test sample is extinguished in all cases mentioned above. If the sample continues to burn after 25 seconds a horizontal test can be performed to meet classification.

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CANADA
Guelph, Ontario (519) 822-2960
St. Laurent, Quebec (514) 343-9010
USA
Cheektowaga, NY (716) 651-0086
www.hammondmfg.com
EUROPE
Basingstoke, UK +44 1256 812812
AUSTRALASIA
Queenstown, SA, Australia +61 8 8240 2244

Degree of protection - “IP” Codes Information

Example:

IP 55

I.P. Protection Classification Degrees of contact prevention and guarding against foreign objects		
1st I.P. Digit	**Designation**	**Explanation**
0	No protection	No protection of personnel from direct contact with active or moving parts. No protection from access of solid foreign object.
1	Protection against large foreign bodies	Protection of personnel from accidental large area direct contact with active or internal moving parts (hand contact etc.) but no guard against intentional access to such parts. Protection from access of solid foreign object larger than 12 mm in diameter.
2	Protection against medium foreign bodies	Protection of personnel from finger contact with active or internal moving parts. Protection from access of solid foreign object larger than 12 mm in diameter.
3	Protection against small foreign bodies	Protection of personnel from touching active or internal moving parts with tools, wires or similar foreign objects thicker than 2.5 mm. Protection from access of solid foreign matter larger than 2.5 mm in diameter.
4	Protection against granular foreign bodies	Protection of personnel from touching active or internal moving parts with tools, wires or similar foreign objects thicker than 1 mm.
5	Protection from deposit of dust	Total protection of personnel from touching voltage carrying or internal moving parts. Protection from harmful deposit of dust. Access of dust is not completely prevented.
6	Protection from access of dust	Total protection of personnel from touching voltage carrying or internal moving parts. Protection from access of dust.

I.P. Protection Classification Degrees of water protection		
2nd I.P. Digit	**Designation**	**Explanation**
0	No protection	No special protection
1	Protectiion against water dripping vertically	Water drops falling vertically must not have any harmful effect.
2	Protection against water dripping off vertically	Water drops falling at any angle up to 15º from the vertical must not have any harmful effect.
3	Protection against spray water	Water drops falling at any angle up to 15º from the vertical must not have any harmful effect.
4	Protection against splash water	Water splashing against the object from all directions must not have any harmful effect.
5	Protection against jet water	A jet of water nozzled from all directions must not have any harmful effect.
6	Protection against flooding	Water from temporary flooding, such as heavy seas, must not enter in any harmful quantity.
7	Protection in dipped state	If the object is dipped into water under the defined conditions of pressure and time, water must not enter it in any harmful quantity.
8	Protection in submerged state	If the object is submerged in water, water must not enter in any harmful quantity.