

# CHEMCAST®

The all purpose cell-cast acrylic sheet

Distributed by:



**Piedmont Plastics®**

where solutions take shape

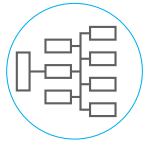
Toll Free: 1.800.277.7898

[www.piedmontplastics.com](http://www.piedmontplastics.com)



 **UNIGEL**

# INTRODUCTION

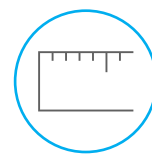


What makes CHEMCAST® acrylic sheet notably different is:

- CHEMCAST® is the only high quality acrylic sheet that can provide you with short runs capability and color selection to fit your specific needs.
- CHEMCAST® is the product of a vertically integrated industry that has been manufacturing cell-cast acrylic sheets for over 30 years in Mexico; this includes full control of raw material and distribution each step of the way.
- Quality control and product reliability are also an integrated process. Both are scientifically applied and carefully monitored throughout the entire process under the direction of highly competent employee group.



# SHEET SIZES & THICKNESSES



Thickness  
(in) mm

Size mm (in)

		1220X1830 (48" X 72")	1220X2440 (48"X 96")	1295X2540 (51"X 100")	1524X2440 (60"X 96")	1830X2440 (72"X 96")	1905x2540 (75"x 100")	1220x3050 (48"x120")	1524x3050 (60"x120")	1830x3050 (72"x120")	2030X3050 (80"X 120")	1295X3175 (51"x 125")	1600X3175 (63"x 125")	1905X3175 (75"x 125")
0.060"	1.5mm	√	X	X	X	X	X	X	X	X	X	X	X	X
0.080"	2.0mm	√	X	X	X	X	X	X	X	X	X	X	X	X
0.100"	2.5mm	√	√	√	X	X	X	X	X	X	X	X	X	X
0.110"	2.8mm	√	√	√	X	X	X	X	X	X	X	X	X	X
0.118"	3.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.125"	3.2mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.157"	4.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.177"	4.5mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.197"	5.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.220"	5.6mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.236"	6.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.250"	6.25mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.315"	8.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.354"	9.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.394"	10.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.472"	12.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.590"	15.0mm	√	√	√	√	√	√	√	√	√	√	√	√	√
0.708"	18.0mm	√	√	√	√	√	X	√	√	√	√	√	√	√
0.944"	24.0mm	√	√	√	√	√	X	√	√	√	√	X	X	X
1.25"	32.0mm	√	√	X	√	√	X	X	X	X	X	X	X	X
1.50"	38.0mm	X	√	X	X	X	X	X	X	X	X	X	X	X
2.00"	50.0mm	X	√	X	X	X	X	X	X	X	X	X	X	X

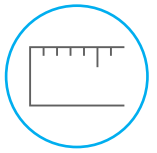
√ - Available

X - Not available

Please contact us for thicknesses and sizes not included in this table.

# GUARANTEED THICKNESS

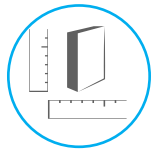
Thickness tolerance allowed by ASTM D4802 Norm.



SIZES mm x mm (in x in)														
THICKNESS mm (in)	1220X1830 (48" X 72")	1220X2440 (48"X96")	1295X2540 (51"X100")	1524X2440 (60"X96")	1600x2540 (63"x 100")	1830X2440 (72"X 96")	1905x2540 (75"x 100")	1295X3175 (51"x 125"),	1600X3175 (63"x 125")	1905X3175 (75"x 125")	2030X3050 (80"X 120")	1220x3050 (48"x120")	1524x3050 (60"x120")	1830x3050 (72"x120")
1.5 mm (0.060")	0.814 - 2.11 (0.032"- 0.083")	X	X								X			
2.0 mm (0.080")	1.29 - 2.55 (0.052"- 0.102")	X	X								X			
2.5 mm (0.100")	1.76 - 3.03 (0.071"- 0.121")	X	X								X			
2.8 mm (0.110")	2.20 - 3.10 ( 0.086" - 0.122" )		X								X			
3.0 mm (0.118")	2.24 - 3.50 (0.088"-0.138")		1.98 - 3.50 (0.078"-0.148")								2.46 - 3.54 (0.100" - 0.136")			
4.0 mm (0.157")	3.09 - 4.56 (0.122"-0.179")		2.73 - 4.74 (0.107"-1.186")								3.4 - 4.6 (0.133" - 0.181")			
4.5 mm (0.177 ")	3.53 - 5.06 (0.139"-0.199")		3.41 - 5.18 (0.134"-0.204")								5.19 - 3.41 (0.204" - 0.134")			
5.0 mm ( 0.197")	4.03 - 5.60 (0.158"-0.220")		3.90 - 5.70 (0.153"-0.224")								4.25 - 5.75 (0.167" - 0.227)			
5.6 mm ( 0.220")	4.46 - 6.24 (0.175"-0.245")		4.43 - 6.34 (0.170 " - 0.249")								4.33 - 6.33 (0.170" - 0.249")			
6.0 mm ( 0.236")	4.86 - 6.63 (0.191"-0.261")		4.73 - 6.50 (0.186"-0.266")								5.1 - 6.9 (0.201" - 0.271")			
8.0 mm ( 0.315")	6.65 - 8.68 (0.262"-0.342")		6.53 - 8.81 (0.257"-0.347")								6.8 - 9.2 (0.268" - 0.362")			
9.0 mm ( 0.354")	7.48 - 9.76 (0.294"-0.384")		7.35 - 9.89 (0.289"-0.389")								7.35 - 9.89 (0.289" - 0.389")			
10.0 mm ( 0.394")	8.30 - 10.80 (0.327"-0.425")		8.00 - 10.70 (0.315"-0.422")								8.5 - 11.5 (0.335" - 0.453" )			
12.0 mm (0.472 ")	10.22 - 12.76 (0.402"-0.502")		10.09 -12.88 (0.397"-0.507")								10.2 - 13.8 (0.401" - 0.543")			
15.0 mm ( 0.590")	13.15 - 15.90 (0.518"-0.625")		13.00 - 16.05 (0.512 "-0.632")								13.07 - 15.85 (0.514" - 0.624")			
18.0 mm (0.708 ")	15.97-18.76 (0.629"-0.739")		15.72-19.02 (0.619"-0.749")								15.70 - 19.02 (0.618" - 0.748")			
24.0 mm ( 0.944")	21.79-24.58 (0.858"-0.968")		21.16 - 25.22 (0.833" - 0.993")								21.16 - 25.22 (0.832" - 0.992")			
32.0 mm (1.250")	29.61-33.32 (1.166"-1.312")		29.61 - 33.32 (1.166" - 1.312")								X			
38.0mm (1.50")	34.92 - 38.98 (1.375" - 1.535")		x								X			
50.0 mm (2.00")	46.93 - 52.27 (1.848" - 2.058")		x								X			

Please contact us for thicknesses and sizes not included in this table.

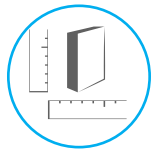
# NET GUARANTEED TRIMMED SIZE



Thickness	mm	in
1.5mm - 50.0mm (0.060" -2.00")	1220X1830	48" X 72"
	1220X2440	48"X 96"
	1295X2540	51"X 100"
	1524X2440	60"X 96"
	1830X2440	72"X 96"
	1905x2540	75"x 100"
	1220x3050	48"x120"
	1524x3050	60"x120"
	1830x3050	72"x120"
	2030X3050	80"X 120"
	1295X3175	51"x 125"
	1600X3175	63"x 125"
	1905X3175	75"x 125"

Untrimmed size could be larger, but high quality is only guaranteed for net size.  
Please contact us for thicknesses and sizes not included in this table.  
In the case of 80"x120" in 0.708" and 0.944" thickness, net real size is 80"x119",

# MINIMUM RUNS PER PRODUCT



THICKNESS mm (in)		SIZE				
	mm	1.5mm - 6.0mm	8.0 mm - 12.0 mm	15.0mm - 18.0 mm	24.0mm - 32.0 mm	38.0mm - 50.0mm
	in	0.060" - 0.236"	0.315" - 0.472"	0.590" - 0.708"	0.944" - 1.25"	1.50" - 2.00"
mm	in					
1220X1830	48" X 72"	15	15	10	X	X
1220X2440	48"X 96"	18	15	8	10	6
1295X2540	51"X 100"	15	15	10	10	X
1524X2440	60"X 96"	15	12	8	10	X
1830X2440	72"X 96"	13	12	10	10	X
1905x2540	75"x 100"	12	12	8	X	X
1220x3050	48"x120"	8	8	8	8	X
1524x3050	60"x120"	8	8	8	8	X
1830x3050	72"x120"	8	8	8	8	X
2030X3050	80"X 120"	8	8	8	8	X
1295X3175	51"x 125"	8	8	8	X	X
1600X3175	63"x 125"	8	8	8	X	X
1905X3175	75"x 125"	8	8	8	X	X

## PACKAGING (Sheets per pallet)

All material is packed in standard pallets, as shown in the following table.

Shipments should be submitted to +/- 10% or +/-20% of the quantity ordered, depending on the kind of product.

Standard products are subject to +/- 10%. Custom colors, Oversized, P-95, DP-95, High Impact are subject to +/- 20%.

For minimums on other differentiated products, please contact Customer Service.

Based on customer's order, the standard colors will be packed in rainbow pallets of the same size. Proper identification with pallet labels will show the colors included on each rainbow pallet.

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## • SHEETS PER PALLET

		48"X72"	48"X96"	51"X100"	60"X96"	72"X72"	72"X96"	75"X100"	48"X120"	60"X120"	72"X120"	80"X120"	51"X125"	63"X125"	75"X125"
THICKNESS		180X120	240x120	250x130	240x150	180X180	240x180	254x191	305X122	305X152	305x183	305X203	320X 130	320X160	320X191
MM	INCHES														
1.5 mm	0.060"	250	-	-	-	-	-	-	-	-	-	-	-	-	-
2.0 mm	0.080"	240	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5 mm	0.100"	190	-	-	-	-	-	-	-	-	-	-	-	-	-
3.0 mm	0.118"	150	125	120	80	100	80	70	50	45	45	45	60	55	50
4.0 mm	0.157"	90	80	75	60	75	55	50	-	-	-	40	-	-	-
4.5 mm	0.177"	-	70	70	50	-	45	45	40	40	35	35	40	45	35
5.0 mm	0.197"	75	65	60	45	60	40	-	-	-	-	35	-	-	-
5.6 mm	0.220"	65	60	60	40	55	35	40	35	35	30	30	35	35	25
6.0 mm	0.236"	65	60	50	40	50	35	35	35	35	30	30	35	35	25
8.0 mm	0.315"	45	40	-	30	-	25	-	-	-	-	22	25	-	-
9.0 mm	0.354"	-	35	35	25	-	25	24	25	25	20	20	20	22	20
10.0 mm	0.394"	40	30	-	-	-	22	-	-	-	-	18	-	-	-
12.0 mm	0.472"	-	28	28	20	-	20	18	22	16	15	15	15	16	15
15.0 mm	0.590"	-	20	-	15	-	15	16	-	-	-	-	-	-	-
18.0 mm	0.708"	-	18	18	14	-	12	-	10	10	10	10	-	-	-
20.0 mm	0.787"	-	16	-	-	-	-	-	-	-	-	-	-	-	-
24.0 mm	0.944"	-	14	14	10	-	10	-	10	10	8	7	-	-	-
32.0 mm	1.250"	-	10	-	8	-	8	-	-	-	-	-	-	-	-
38.0mm	1.500"	-	9	-	-	-	-	-	-	-	-	-	-	-	-
50.0mm	2.000"	-	7	-	-	-	-	-	-	-	-	-	-	-	-



- **COLORS**

32 Standard colors, carefully matched to market specifications.

- **CUSTOM COLORS**

Fluorescents, P-95, Marbles/Pearls and other special colors are available.

- **COLOR MATCHING**

We offer color matching service for your new designs and ideas. Certain minimum quantities and other requirements may apply depending on specific needs.

- **CUSTOM COLOR MATCHING POLICY**

Plastiglas de Mexico will initially search in its color bank for identical or very close matches for customer approval to avoid development costs.

If a satisfactory existing color is unavailable, we will reproduce the particular color. The color development process requires approximately 3 to 4 weeks lead-time depending on our backlog. To initiate the color development process the minimum volume required is 2,500 pounds (one full pallet). For subsequent orders of the same item, the same color in the identical size and thickness will require minimum batch volume.

An extra cost to develop colors for potential orders will proceed in case Plastiglas de Mexico does not receive the order.

If a special project calls for a minimum number of sheets, an overrun is possible.

Please refer to your current Custom Colors Price List

Cancellation Policy: An approved matched custom color order cancellation is subject to a 100% cancellation charge.

Custom Color match fee is \$150.00 USD\$ per color.





## • STANDARD COLORS CHEMCAST®

For standard colors please consider the following categories and their minimums to order:

Standard colors - The minimum quantity per order must be of 25 sheets per clear & color / size / thickness from 0.060" to 0.236". For thicknesses above 0.236" the minimum order is of standard pallet quantities.

Standard color with minimum order - Please refer to chart of MINIMUM RUNS PER PRODUCT.

Custom colors - Please refer to the following charts:

## • FLUORESCENTS (INDOORS ONLY)

COLOR CODE	SHEET SIZE mm (in)	SHEET THICKNESS mm (in)
L-032 ORANGE	1220 x 2440 (48" x 96")	3.0 (0.118")
L-043 YELLOW		4.5 (0.177")
L-052 GREEN	1295 x 2540 (51" x 100")	5.6 (0.220")
L-089 BLUE		6.0 (0.236")
L-111 GREEN	1525 x 2440 (60" x 96")	9.0 (0.354")
L-116 RED		12.0 (0.472")

## • PEARLESCENTS (INDOORS ONLY)

COLOR CODE	SHEET SIZE mm (in)	SHEET THICKNESS mm (in)
L-400 WHITE	1220 x 1830 (48" x 72")	3.0 (0.118")
L-401 IVORY		
L-402 BROWN		
L-403 PINK		
L-404 BROWN	1220 x 2440 (48" x 96")	4.5 (0.177")
L-412 BLUE		
L-450 GRAY		



## • MATTE FINISH (P-95 & DP-95)

COLOR CODE	SHEET SIZE mm (in)	SHEET THICKNESS mm (in)	
CLEAR	1220 x 1830 (48" x 72")	2.8 (0.110")	8.0 (0.315")
3030 GREEN EDGE	1220 x 2440 (48" x 96")	3.0 (0.118")	9.0 (0.354")
2447 WHITE	1295 x 2540 (51" x 100")	4.0 (0.157")	10.0 (0.394")
7328 WHITE	1525 x 2440 (60" x 96")	4.5 (0.177")	12.0 (0.472")
7508 WHITE	1830 x 2440 (72" x 96")	5.0 (0.197")	15.0 (0.590")
2025 BLACK	3050 x 2030 (80" x 120")	5.6 (0.220")	18.0 (0.708")
Standard & Custom Colors		6.0 (0.236")	24.0 (0.944")

Upon request, all CHEMCAST® available colors can be developed in P-95 or DP-95 (minimums may apply).

# PHYSICAL AND MECHANICAL PROPERTIES



PROPERTY	TYPICAL VALUE (1)	TEST METHOD
<b>OPTICAL</b>		
Specific Gravity	1.18	ASTMD 792
OpticalRefractive Index	1.49	ASTMD 542
Haze (%)	2.0	ASTMD 542
LightTransmission (%)		
0.100" - 0.197"	92	ASTM 1003
0.220" - 0.472"	90	ASTM 1003
<b>MECHANICAL</b>		
Tensile Streght (psi)	9600	ASTM D638
Elongation at Rupture (%)	4.5	ASTM D638
Modulus of Elasticity (psi)	425,000	ASTM D798
Impact Strength (ft lb/in)	0.4 - 0.5	ASTM 256
Flexural Strength (psi)	15000 - 16000	ASTM D 798
Rockwell Hardness	M (90 - 100)	ASTM 785
Barcol Hardness	50	ASTM 2583
<b>THERMAL</b>		
Forming Temperature (°C)	140 - 180	ASTMD 648
(°F)	284 - 356	ASTMD 648
Detection Temperature Under Load (264 psi) (°C)	91	
(°F)	196	
Maximum recommended continuous service temp (°C)	80	ASTM 1525
(°F)	176	ASTM 1525
<b>MISCELLANEOUS</b>		
Water absorption (24 hrs.-23°C-73°F) (%)	0.3%	ASTM 570

All values referred to 0.118" (3.0 mm) acrylic sheet. These values are typical and should not be taken as specifications.

# CHEMICAL RESISTANCE



CHEMICAL	CODE	CHEMICAL	CODE
Acetic Acid (10%)	LR	Hydrogen Peroxide (3%)	R
Acetic Acid (glacial)	N	Isopropyl Alcohol	LR
Acetone	N	Kerosene	R
Ammonium Chloride	R	Lacquer Thinner	N
Ammonium Hydroxide	R	Methyl Alcohol (30%)	LR
Benzene	N	Methyl Alcohol (100%)	N
Calcium chloride	R	Methyl Ethyl Ketone	N
Carbon Tetrachloride	N	Methylene Chloride	N
Chloroform	LR	Nitric Acid (10%)	R
Chromic Acid (10%)	N	Nitric Acid (100%)	N
Chromic Acid (conc.)	N	Phenol (5%)	N
Diethyl Ether	LR	Sodium Chloride	R
IOCtl Phthalate	LR	Sodium Hydroxide (10%)	R
Ethyl Alcohol (30%)	N	Sodium Hypochlorite	R
Ethyl Alcohol (95%)	N	Sulfuric Acid (3%)	N
Ethylene Dichloride	N	Sulfuric Acid (conc.)	N
Ethylene Glycol	R	Toluene	N
Gasoline	LR	Trichloroethylene	N
Glycerin	R	Turpentine	R
Hexane	R	Water (distilled)	R
Hydrochloric Acid	R	Xylene	N

The code is used to describe chemical resistance as follows:

**R = RESISTANT**

Acrylic cast withstand this substance for long periods and at temperature up to 120°F (49°C).

**LR = LIMITED RESISTANCE**

Acrylic only resists the action of this substance for short periods at room temperature.

**N = NOT RESISTANT**

Acrylic is not resistant to this substance. It is swelled, attacked, dissolved or damaged in some manner.

These values are typical and should not be taken as specification