



**POLYCAST™  
CAST ACRYLIC  
RODS & TUBES**

Custom and Stock  
Acrylic Solutions

# POLYCAST RODS & TUBES

Polycast™ cast acrylic rods and tubes from PolyOne provide outstanding optical clarity, high impact resistance, superb weathering ability and excellent UV properties. A variety of sizes, thicknesses and colors are available for a wide range of applications and industrial uses.

## INVENTORY AND MANUFACTURING

Featuring exceptional and consistent quality, Polycast rods and tubes are delivered with the dependability and service you expect from PolyOne. We maintain a large tubing and rod inventory for quick and timely order processing. Each rod and tube is inspected, then carefully packaged and labeled with all specifications. Our inventory tracking system ensures that we have real time information and can fill your order quickly and accurately.

## MACHINING & FABRICATION

We have a fabrication and machining facility staffed by experts who are able to handle your exact needs. Available operations include flame polishing, angle cuts, drilling, chamfering and specialty machining. Any rod or tube can be cut to meet your specifications.

## APPLICATIONS

Polycast Rods and Tubes are ideal for many applications, including:

- Displays
- Signage
- Medical devices
- Arts & crafts
- Aquariums
- And much more

## CAST ACRYLIC TUBING

Clear cast acrylic tubing is manufactured in standard 6' lengths (random 71" to 73") and in diameters ranging from 1.25" O.D. to 27.65" O.D. Wall thicknesses of .125", .187", .250", .375" and .500" are available in most diameter tubes. Special wall thicknesses are available on request.

## CAST ACRYLIC ROD

Clear cast acrylic rods are manufactured in diameters ranging from .250" to 8.00". Tight tolerances throughout the manufacturing process ensure you receive the highest quality rods available. Standard lengths for clear rods are:

- 8' for rods .250" to 2.00" in diameter
- 6' for rods 2.125" to 3.00" in diameter
- 4' for rods 3.25" to 6.00" in diameter
- 3' for rods 6.50" to 8.00" in diameter
- 2' for rods 9.00" in diameter

Colored rod is manufactured in 46"-49.5" lengths.



2069 Blue

6700 Amber

6738 Violet

2414 Green

6213 Red F

6954 Amber F

6500  
Green

# DATA CHART

PROPERTIES	UNITS	DATA
Refractive Index	-	1.49
Specific Gravity	-	1.19
Spectral Transmittance (Type UVA)		
270 nm	%	<5
280 nm	%	<5
290 nm	%	<5
310 nm	%	<5
340 nm	%	<5
Luminous Transmittance		
< 4.7mm (0.187 in.) thickness	%	92
25.4 mm (1.00 in.) thickness	%	89
> 25.4 mm (1.00 in.) thickness	%	87
Haze	%	1.0
Deflection Temperature	°F (°C)	401 (205)
Water Absorption	%	0.8
Tensile Strength	psi	11000
Elongation at Break	%	3



6677 Blue F

2208 Yellow

2423 Red

2111 Green

6600 Blue

6481 Green F

# RODS

## COLORS

### STANDARD

1936 Lt Tan  
2025 Black  
2026 Extra Black  
2030 Green  
2037 Yellow  
2044 Lt Navy Gray  
2050 Blue  
2054 Dk Navy Gray  
2064 Gray  
2069 Blue  
2074 Gray  
2092 Green  
2111 Green

2112 Dk Green  
2114 Blue  
2130 Pink  
2146 Ivory  
2208 Yellow  
2283 Red  
2328 Dk Tan  
2370 Bronze  
2404 Bronze  
2414 Green  
2422 Amber  
2423 Red  
2424 Blue

2447 White  
2465 Yellow  
2473 Copper  
2630 Brown  
3000 IRT  
3030 Green  
4000 Ultra-Brite  
6512 Green  
6738 Violet  
7328 White  
9702 Violet  
9712 Purple

### FLUORESCENT

6213 Red  
6481 Green  
6533 Neon Green  
6677 Blue  
6954 Amber

### PEARL

1601 White  
1603 Fluorescent Green  
1725 Golden Oak  
1730 Black  
1735 Black 'n' Gold  
1740 Red  
1745 Orange  
1750 Blue  
1755 Hot Pink  
1765 Green  
1770 Black Cherry  
1775 Teal

Diameters for colored rods  
range from .500" to 3.00"  
in standard 4' lengths



## Clear, Polished

Machine grade rod is available upon request.

Diameter	Length (ft)	Weight (lbs/ft)	Tolerance
.250	8	.026	±.005
.312	8	.039	±.005
.375	8	.056	±.005
.500	8	.100	±.010
.625	8	.158	±.010
.750	8	.227	±.010
.875	8	.309	±.010
1.000	8	.403	±.010
1.125	8	.511	±.015
1.250	8	.630	±.015
1.375	8	.762	±.015
1.500	8	.907	±.015
1.625	8	1.070	±.015
1.750	8	1.240	±.015
1.875	8	1.420	±.015
2.000	8	1.610	±.015
2.125	6	1.820	±.030
2.250	6	2.040	±.030
2.500	6	2.520	±.030
2.750	6	3.050	±.030
3.000	6	3.630	±.030
3.250	4	4.260	±.045
3.500	4	4.940	±.045
3.750	4	5.670	±.045

Diameter	Length (ft)	Weight (lbs/ft)	Tolerance
4.000	4	6.450	±.045
4.250	4	7.280	±.045
4.500	4	8.200	±.045
4.750	4	9.100	±.045
5.000	4	10.100	±.045
5.250	4	11.100	±.045
5.500	4	12.200	±.045
5.750	4	13.300	±.045
6.000	4	14.600	±.045
6.500	3	17.200	±.060
7.000	3	20.000	±.060
7.500	3	22.800	±.060
8.000	3	26.000	±.060
9.000	2	29.259	±.060



# TUBES

## COLORS

6000 White (Translucent)  
6100 Black  
6300 Opaque White  
6400 Red  
6500 Green  
6600 Blue  
6681 Gas Pump Blue  
6700 Amber

## TOLERANCES

Normal O.D.	Plus/Minus
1.250"-3.000"	.020
3.125"-3.875"	.030
4.000"-6.000"	.045
6.250"-12.00"	.065
12.500"-27.625"	.125



**Clear, Polished 71"-73" lengths**  
 Custom lengths can be cut for a charge.

O.D.	Weight (lbs/ft)				
	.125"	.187"	.250"	.357"	.500"
1.250	.215	.306	.378		
1.500	.277	.397	.504		
1.625	.303	.435	.555		
1.750	.328	.473	.605		
1.875	.355	.489	.630		
2.000	.370	.548	.706	.889	1.075
2.250	.429	.624	.807	1.060	1.353
2.375	.453	.662	.857	1.145	1.431
2.500	.479	.699	.908	1.233	1.499
2.625	.483	.703	.950	1.297	1.635
2.750	.529	.775	1.008	1.437	1.703
2.875	.545	.813	1.059	1.513	1.806
3.000	.580	.851	1.109	1.588	1.932
3.125	.605	.889	1.168	1.664	2.030
3.250	.630	.926	1.210	1.740	2.126
3.375	.655	.964	1.260	1.815	2.223
3.500	.681	1.002	1.311	1.891	2.420
3.625	.705	1.039	1.362	1.967	2.520
3.750	.731	1.078	1.412	2.043	2.622
3.875	.757	1.115	1.462	2.119	2.724
4.000	.781	1.154	1.512	2.193	2.824
4.124	.807	1.191	1.564	2.269	2.925
4.250	.833	1.230	1.614	2.344	3.025
4.375	.860	1.275	1.664	2.420	3.125
4.500	.883	1.305	1.715	2.496	3.227
4.625	.908	1.342	1.765	2.572	3.329
4.750	.933	1.381	1.815	2.648	3.429
4.875	.957	1.417	1.865	2.722	3.529
5.00	.983	1.455	1.915	2.798	3.630
5.250	1.034	1.533	2.17	2.950	3.832
5.500	1.084	1.609	2.092	3.101	4.033
5.625	1.108	1.644	2.168	3.177	4.134
5.750	1.134	1.683	2.219	3.253	4.235

O.D.	Weight (lbs/ft)				
	.125"	.187"	.250"	.357"	.500"
6.000	1.184	1.759	2.319	3.403	4.437
6.093	1.204	1.786	2.357	3.459	4.513
6.250	1.255	1.831	2.388	3.583	4.677
6.500	1.280	1.910	2.522	3.706	4.841
6.750	1.340	1.963	2.575	3.864	5.077
7.000	1.389	2.060	2.722	4.008	5.244
7.250	1.450	2.115	2.800	4.047	5.395
7.500	1.488	2.214	2.925	4.311	5.647
7.626	1.502	2.234	2.950	4.359	5.730
8.000	1.588	2.634	3.125	4.613	6.051
8.250	1.639	2.440	3.227	4.765	6.252
8.500	1.689	2.515	3.329	4.916	6.454
8.750	1.739	2.591	3.445	5.068	6.656
9.000	1.789	2.659	3.529	5.218	6.857
9.125	1.800	2.705	3.560	5.280	6.902
9.250	1.841	2.743	3.360	5.370	7.059
9.500	1.891	2.819	3.732	5.505	7.261
10.000	1.989	2.969	3.932	5.832	7.661
10.500	2.090	3.120	4.134	6.125	8.201
10.625	2.140	3.186	4.152	6.155	8.402
11.000	2.193	3.271	4.336	6.428	8.741
11.500	2.294	3.424	4.539	6.732	8.874
11.750	2.398	3.499	4.641	6.882	9.074
12.000	2.421	3.574	4.739	7.033	9.278
12.500	2.540	3.720	4.930	7.310	9.650
13.625	2.620	3.924	5.207	7.718	10.149
14.000	2.800	4.235	5.550	8.245	10.891
15.000	3.001	4.485	5.953	8.858	11.698
16.000	3.187	4.600	6.221	9.077	12.023
18.000	3.610	5.201	7.026	10.209	13.886
20.000	4.167	6.441	8.229	12.135	15.180
24.000	4.650	7.126	9.395	13.701	18.463
27.625	5.380	7.836	10.585	16.007	22.601

## CERTIFICATIONS

UL 746A: Underwriters Laboratories recognized for polymeric materials in electrical applications. Contact inside sales for further information.

NSF Grade: PolyOne offers tube and rod which meets the requirements for the National Sanitation Foundation.

FDA: Food and Drug Administration's regulations concerning food contact applications as described in 21 CFR 177.1010 for all food types, including alcoholic beverages in room temperature or refrigerated applications.

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