



# Cast Acrylic Rods & Tubes

Custom and Stock Acrylic Solutions

**POLYCAST**  
PRODUCT SELECTION GUIDE



# RODS & TUBES

Polycast™ cast acrylic rods and tubes 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 Polycast. 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 9.00". 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 rods are manufactured in 46"—49.5" lengths.

## CERTIFICATIONS

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

**NSF Grade:** Polycast offers rods and tubes which meet 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.

**ASTM D5436:** Polycast acrylic rods and tubes are manufactured in alignment with ASTM D5436.

*Tight tolerances throughout the manufacturing process ensure you receive the highest quality rods available.*



| DATA CHART                         |         |           |
|------------------------------------|---------|-----------|
| PROPERTIES                         | UNITS   | DATA      |
| Refractive Index                   | —       | 1.49      |
| Specific Gravity                   | —       | 1.19      |
| Spectral Transmittance (Type (UVA) |         |           |
| 270nm                              | %       | <5        |
| 280nm                              | %       | <5        |
| 290nm                              | %       | <5        |
| 310nm                              | %       | <5        |
| 340nm                              | %       | <5        |
| Luminous Transmittance             |         |           |
| < 4.7 mm (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     | 11,000    |
| Elongation at Break                | %       | 3         |



# RODS

## COLORS

### STANDARD

|             |              |
|-------------|--------------|
| <b>2025</b> | Black        |
| <b>2026</b> | Extra Black  |
| <b>2044</b> | Lt Navy Gray |
| <b>2050</b> | Blue         |
| <b>2054</b> | Dk Navy Gray |
| <b>2064</b> | Gray         |
| <b>2069</b> | Blue         |
| <b>2074</b> | Gray         |
| <b>2092</b> | Green        |
| <b>2111</b> | Green        |
| <b>2112</b> | Dk Green     |
| <b>2114</b> | Blue         |

|             |        |
|-------------|--------|
| <b>2130</b> | Pink   |
| <b>2146</b> | Ivory  |
| <b>2208</b> | Yellow |
| <b>2283</b> | Red    |
| <b>2328</b> | Dk Tan |
| <b>2370</b> | Bronze |
| <b>2404</b> | Bronze |
| <b>2414</b> | Green  |
| <b>2422</b> | Amber  |
| <b>2423</b> | Red    |
| <b>2424</b> | Blue   |
| <b>2447</b> | White  |

|             |             |
|-------------|-------------|
| <b>2465</b> | Yellow      |
| <b>2473</b> | Copper      |
| <b>2630</b> | Brown       |
| <b>3000</b> | IRT         |
| <b>3030</b> | Green       |
| <b>4000</b> | Ultra-Brite |
| <b>6512</b> | Green       |
| <b>6738</b> | Violet      |
| <b>7328</b> | White       |
| <b>9702</b> | Violet      |
| <b>9712</b> | Purple      |

### FLUORESCENT

|             |            |
|-------------|------------|
| <b>6213</b> | Red        |
| <b>6481</b> | Green      |
| <b>6533</b> | Neon Green |
| <b>6677</b> | Blue       |
| <b>6954</b> | Amber      |

### PEARL

|             |                   |
|-------------|-------------------|
| <b>1601</b> | White             |
| <b>1603</b> | Fluorescent Green |
| <b>1705</b> | Purple            |
| <b>1725</b> | Golden Oak        |
| <b>1730</b> | Black             |
| <b>1735</b> | Black 'n' Gold    |
| <b>1740</b> | Red               |
| <b>1745</b> | Orange            |
| <b>1750</b> | Blue              |
| <b>1755</b> | Hot Pink          |
| <b>1765</b> | Green             |
| <b>1770</b> | Black Cherry      |
| <b>1775</b> | 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     |
| 4.000    | 4           | 6.450           | ±.045     |
| 4.250    | 4           | 7.280           | ±.045     |

| DIAMETER | LENGTH (FT) | WEIGHT (LBS/FT) | TOLERANCE |
|----------|-------------|-----------------|-----------|
| 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                 |
| 6450 | Rose                |
| 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" – 12.000"  | .065       |
| 12.250" – 27.625" | .125       |



*Spartech™ acrylic tubes provide outstanding optical clarity and high impact resistance*



# CLEAR, POLISHED 71"–73" LENGTHS

(Custom lengths can be cut for a charge.)

| WEIGHT (LBS/FT) |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|
| O.D.            | .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 |
| 5.000           | .983  | 1.455 | 1.915 | 2.798 | 3.630 |
| 5.250           | 1.034 | 1.533 | 2.170 | 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 |
| 6.000           | 1.184 | 1.759 | 2.319 | 3.403 | 4.437 |

| WEIGHT (LBS/FT) |       |       |        |        |        |
|-----------------|-------|-------|--------|--------|--------|
| O.D.            | .125" | .187" | .250"  | .357"  | .500"  |
| 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  | 6.7352 | 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 |

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4400 Vandalia Rd.  
Pleasant Hill, IA 50327

**515-265-4157 • 1-800-677-4338**

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