

**Resdel Corporation**  
 Cape May County Industrial Park  
 Rio Grande, NJ 08242  
 phone: 609.886.1111 fax: 609.886.6329  
 email: resdel@resdel.com  
 www.resdel.com

## SIZE SCHEDULE

The following size schedule lists outside diameters currently available. Specify inside diameter (or wall thickness) and length. Tubing can be cut to lengths of up to 56" for outside diameters of 2.00" or under. Larger OD's are available in 28" maximum lengths.

### Standard Outside Diameters (inches)\*

0.137	0.415	0.750	1.500
0.145	0.437	0.812	1.680
0.168	0.453	0.833	2.000
0.180	0.476	0.843	2.250
0.187	0.500	0.860	2.500
0.200	0.525	0.875	2.750
0.228	0.560	0.885	3.000
0.242	0.580	0.937	3.156
0.248	0.600	1.000	3.375
0.255	0.617	1.065	3.500
0.270	0.625	1.125	3.970
0.281	0.634	1.160	4.000
0.312	0.641	1.187	4.250
0.325	0.687	1.250	4.562
0.375	0.712	1.312	5.000
0.387	0.730	1.375	5.375
0.395			

\*Nominal OD may vary according to specific epoxy formulation

### Tolerances

<u>Size Range</u>	<u>OD</u>	<u>ID (Wall Thickness)</u>
0.000 to 0.499	± 0.0010	± 0.0050
0.500 to 0.999	± 0.0015	± 0.0050
1.000 to 1.499	± 0.0020	± 0.0080
1.500 to 2.000	± 0.0020	± 0.0100

Closer tolerances can be provided upon request

## PROPERTIES OF EPOXY TUBING

**TYPES** - Two general types, filled and unfilled. The filler is a silicon dioxide and the tests below were conducted at a 50% PBW filler content. The filler improves dielectric properties such as dielectric strength, but is difficult to machine and is more brittle.

<i>PROPERTY</i>	<i>ASTM TEST METHOD</i>	<i>50% PBW SILICON DIOXIDE</i>	
		<i>GENERAL PURPOSE UNFILLED</i>	<i>FILLED</i>
<i>Compressive Strength (psi)</i>	<i>D695</i>	<i>16,300</i>	<i>21,800</i>
<i>Tensile Strength - Ultimate (psi)</i>	<i>D638</i>	<i>12,200</i>	<i>6,000</i>
<i>Tensile Strength - Yield (psi) (offset=0.2%)</i>	<i>D638</i>	<i>8,000</i>	
<i>Modulus of Elasticity (psi)</i>	<i>D638</i>	<i>440,000</i>	
<i>Elongation @ Breaking Point (%)</i>	<i>D638</i>	<i>4.8</i>	
<i>Elongation (offset=0.2%) (%)</i>	<i>D638</i>	<i>2.2</i>	
<i>Flexural Strength (psi)</i>	<i>D790</i>	<i>18,300</i>	
<i>Flexural Modulus (psi)</i>	<i>D790</i>	<i>450,000</i>	
<i>Impact Strength, Izod (ft. lbs./in.)</i>	<i>D256</i>	<i>.25</i>	
<i>Thermal Coefficient of Expansion (in./in./°F)</i>	<i>D696</i>	<i>60X 10<sup>-6</sup></i>	<i>30 X 10<sup>-6</sup></i>
<i>Water Absorption % (24 hr. absorption)</i>	<i>D570</i>	<i>.08</i>	
<i>Heat Deflection Temperature °F @ 264 psi)</i>	<i>D648</i>	<i>290</i>	<i>302</i>
<i>Dielectric Strength (volts/mil.)</i>	<i>D149</i>	<i>320</i>	<i>380</i>
<i>Dielectric Constant 60 Hz 10<sup>5</sup> Hz</i>	<i>D150</i>	<i>4.78 3.90</i>	
<i>Dissipation Factor 60 Hz 10<sup>5</sup> Hz</i>	<i>D150</i>	<i>.0084 .034</i>	
<i>Loss Factor 60 Hz 10<sup>5</sup> Hz</i>	<i>D150</i>	<i>.040 .133</i>	

*Note: All Tests @ 23°C unless otherwise noted.*