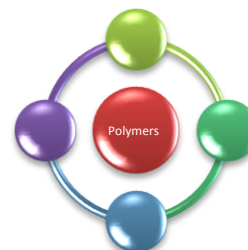




## Technical Reference Bulletin

### RMA Dimensional Tolerance Tables-Silicone

The RMA tolerances listed in the tables below are industry standard tolerances for silicone molding. To ensure repeatability, consistent manufacturability and affordable part cost, you should consider using the maximum possible tolerance when designing your part.



"A1" High Precision Drawing Designation Dimensional Tolerance Table for Molded Rubber Products					
Size (Millimeters)			Size (Inches)		
Above - Included	Fixed		Above - Included	Fixed	
0 - 10	+/- .10		0 - .40	+/- .004	
10 - 16	.13		.40 - .63	.005	
16 - 25	.16		.63 - 1.00	.006	
25 - 40	.20		1.00 - 1.60	.008	
40 - 63	.25		1.60 - 2.50	.010	
63 - 100	.32		2.50 - 4.00	.013	
100 - 160	.40		4.00 - 6.30	.016	

"A3" Commercial Drawing Designation Dimensional Tolerance Table for Molded Rubber Products					
Size (Millimeters)			Size (Inches)		
Above - Included	Fixed		Above - Included	Fixed	
0 - 10	+/- .20		0 - .40	+/- .008	
10 - 16	.25		.40 - .63	.010	
16 - 25	.32		.63 - 1.00	.013	
25 - 40	.40		1.00 - 1.60	.016	
40 - 63	.50		1.60 - 2.50	.020	
63 - 100	.63		2.50 - 4.00	.025	
100 - 160	.80		4.00 - 6.30	.032	
160 & over	X .005		6.30 & over	X .005	

"A2" Precision Drawing Designation Dimensional Tolerance Table for Molded Rubber Products					
Size (Millimeters)			Size (Inches)		
Above - Included	Fixed		Above - Included	Fixed	
0 - 10	+/- .16		0 - .40	+/- .006	
10 - 16	.20		.40 - .63	.008	
16 - 25	.25		.63 - 1.00	.010	
25 - 40	.32		1.00 - 1.60	.013	
40 - 63	.40		1.60 - 2.50	.016	
63 - 100	.50		2.50 - 4.00	.020	
100 - 160	.63		4.00 - 6.30	.025	
160 & over	X .004		6.30 & over	X .004	

"A4" Basic Drawing Designation Dimensional Tolerance Table for Molded Rubber Products					
Size (Millimeters)			Size (Inches)		
Above - Included	Fixed		Above - Included	Fixed	
0 - 10	+/- .32		0 - .40	+/- .013	
10 - 16	.40		.40 - .63	.016	
16 - 25	.50		.63 - 1.00	.020	
25 - 40	.63		1.00 - 1.60	.025	
40 - 63	.50		1.60 - 2.50	.032	
63 - 100	1.00		2.50 - 4.00	.040	
100 - 160	1.25		4.00 - 6.30	.050	
160 & over	X .008		6.30 & over	X .008	

Source: R.M.A. Handbook

A typical silicone shrink rate is 2.5% - 3.5%. Lot to lot, silicone can and does vary in shrink rate up to .5%. Depending upon the silicone compound selected, part geometry and molding method, "A1" tolerances may not be attainable. Even though the tooling is cut to anticipate shrinkage, dimensional tolerances must allow for inherent variability.