

RUBBERMILL MANUFACTURING TOLERANCES FOR FABRICATED RUBBER PARTS



RubberMill steel rule cutting dies are manufactured utilizing computer assisted design (CAD) software to meet customer specifications. Customers are encouraged to supply engineering .dxf and .step drawing files for faster turn around and reduced tooling costs. The tolerances shown here are based on widely accepted industry standards for "Commercial" tolerances. They are intended to be a guide for engineers to create drawings that will result in cost effective, quality parts that meet fit and function requirements. It is recommended that critical dimensions be noted on drawings.

SOLID RUBBER

DIE CUT TOLERANCES FOR SOLID RUBBER SHEET

MATERIAL THICKNESS

DRAWING DIMENSION (INCHES)	UP TO .125" TOLERANCE	.126" to .25" TOLERANCE	.26" TO .50" TOLERANCE
0.00-0.50"	+/- .015"	+/- .020"	+/- .020"
0.51-0.99"	+/- .020"	+/- .025"	+/- .025"
1.00-6.30"	+/- .025"	+/- .032"	+/- .032"
6.31" & up - multiply by	0.004"	0.005"	0.005"

WIDTH TOLERANCES FOR SOLID RUBBER STRIPPING/SPLITTING

MATERIAL WIDTH (INCHES)

ABOVE	INCLUDING	TOLERANCE +/-
0"	.25"	.016"
.25"	.50"	.025"
.50"	1.00"	.040"
1.00"	2.00"	.063"
2.00"	4.00"	.080"
4.00"	8.00"	.100"
8.00"	16.00"	.125"
16.00"	32.00"	.160"

THICKNESS TOLERANCES FOR SOLID RUBBER SHEET

THICKNESS INCHES	TOLERANCE +/-
1/32" (.032)	.012"
1/16" (.062)	.016"
3/32" (.094)	.016"
1/8" (.125)	.020"
3/16" (.187)	.031"
1/4" (.250)	.031"
5/16" (.312)	.031"
3/8" (.375)	.047"
1/2" (.500)	.047"
5/8" (.625)	.063"
3/4" (.750)	.093"
1" (1.000)	10%

SPONGE/FOAM RUBBER

DIE CUT TOLERANCES FOR SPONGE RUBBER SHEET

MATERIAL THICKNESS

DRAWING DIMENSION (INCHES)	UP TO .125" TOLERANCE	.126" to .25" TOLERANCE	.26" TO .50" TOLERANCE
0.00-0.50"	+/- .032"	+/- .032"	+/- .040"
0.51-0.99"	+/- .032"	+/- .032"	+/- .040"
1.00-6.30"	+/- .040"	+/- .040"	+/- .050"
6.31" & up - multiply by	.01"	.01"	.01"

Somewhat better results can be expected when pressure sensitive adhesive (PSA) is applied to expanded cellular materials.

WIDTH TOLERANCES FOR SPONGE RUBBER STRIPPING/SPLITTING

MATERIAL WIDTH (INCHES)

ABOVE	INCLUDING	TOLERANCE +/-
0"	.25"	.016"
.25"	.50"	.025"
.50"	1.00"	.040"
1.00"	2.00"	.063"
2.00"	4.00"	.080"
4.00"	8.00"	.100"
8.00"	16.00"	.125"
16.00"	32.00"	.160"

THICKNESS TOLERANCES FOR SPONGE SHEET

SPONGE RUBBER CLOSED CELL

THICKNESS INCHES	TOLERANCE +/-
1/16" (.062)	.015"
3/32" (.094)	.020"
1/8" (.125)	.020"
3/16" (.187)	.025"
1/4" (.250)	.025"
5/16" (.312)	.025"
3/8" (.375)	.035"
7/16" (.437)	.040"
1/2" (.500)	.040"
5/8" (.625)	.050"
3/4" (.750)	.065"
7/8" (.875)	.075"
1" (1.000)	.082"

SPONGE RUBBER OPEN CELL

THICKNESS INCHES	TOLERANCE +/-
1/16" (.062)	.010"
3/32" (.094)	.010"
1/8" (.125)	.012"
3/16" (.187)	.015"
1/4" (.250)	.025"
5/16" (.312)	.030"
3/8" (.375)	.030"
1/2" (.500)	.030"
3/4" (.750)	.045"
1" (1.000)	.045"