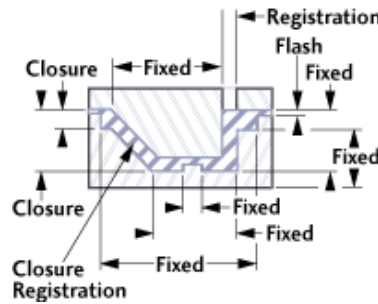


ISO 3302-1 Classes and Tolerances for Products Molded in Solid Rubber M Classes

Classes determine the fixed and closure dimensional tolerances for products molded in solid rubber. The table below shows the 4 classes that are used by ISO 3302-1.



Metric Tolerances (mm)

Nominal Dimension		Class M1		Class M2		Class M3		Class M4
above	up to and including	Fixed ±	Closure ±	Fixed ±	Closure ±	Fixed ±	Closure ±	Fixed and closure±
0	4	0.08	0.1	0.1	0.15	0.25	0.4	0.5
4	6.3	0.1	0.12	0.15	0.2	0.25	0.4	0.5
6.3	10	0.1	0.15	0.2	0.2	0.3	0.5	0.7
10	16	0.15	0.2	0.2	0.25	0.4	0.6	0.8
16	25	0.2	0.2	0.25	0.35	0.5	0.8	1
25	40	0.2	0.25	0.35	0.4	0.6	1	1.3
40	63	0.25	0.35	0.4	0.5	0.8	1.3	1.6
63	100	0.35	0.4	0.5	0.7	1	1.6	2
100	160	0.4	0.5	0.7	0.8	1.3	2	2.5
160	-	0.30%	0.40%	0.50%	0.70%	0.80%	1.30%	1.50%

Inch Tolerances (in)

Nominal Dimension		Class M1		Class M2		Class M3		Class M4
above	up to and including	Fixed ±	Closure ±	Fixed ±	Closure ±	Fixed ±	Closure ±	Fixed and closure±
0	0.157	0.0031	0.0039	0.0039	0.0059	0.0079	0.0079	0.0098
0.157	0.248	0.0039	0.0047	0.0059	0.0079	0.0079	0.0098	0.0138
0.248	0.394	0.0039	0.0059	0.0079	0.0079	0.0098	0.0138	0.0157
0.394	0.63	0.0059	0.0079	0.0079	0.0098	0.0138	0.0157	0.0197
0.63	0.984	0.0079	0.0079	0.0098	0.0138	0.0157	0.0197	0.0276
0.984	1.575	0.0079	0.0098	0.0138	0.0157	0.0197	0.0276	0.0315
1.575	2.48	0.0098	0.0138	0.0157	0.0197	0.0276	0.0315	0.0512
2.48	3.937	0.0138	0.0157	0.0197	0.0276	0.0315	0.0512	0.0787
3.937	6.299	0.0157	0.0197	0.0276	0.0315	0.0512	0.0787	0.0984
6.299	-	0.30%	0.40%	0.50%	0.70%	0.80%	1.30%	1.50%



EJAY INDUSTRY CO., LTD.
Molded & Extruded Rubber Products
Tel: +86-532-68950060 Fax: +86-532-68950070
www.ejayrubber.com

Class	Name	Definition
M1	Precision	This is the tightest tolerance classification and indicates a high precision rubber product. Such moldings require precision molds, fewer cavities per mold, close mix controls, etc., which results in high cost. Optical comparators or other measuring devices may be required to minimize distortion of the rubber part by the measuring instrument. This part requires expensive control and inspection procedures.
M2	High Quality	These moldings involve much of the close controls required for the above class. Molds must be precision machined and kept in good repair. While measurement methods may be simpler than the above class, careful inspection will usually
M3	Good Quality	This class indicates a general grade or commercial product. This is the most commonly used class.
M4	Non-critical	Molds by this class apply to products where control is non-critical and secondary to cost.

Based on the class selected, use the corresponding table below to apply tolerances as follows:

1. Fixed tolerances are related by size to each dimension but all closure tolerances are determined by the largest closure dimension.
2. Tolerances not shown should be determined in consultation with the manufacturer.
3. Take special care when applying standard tolerances to products having wide sectional variations.