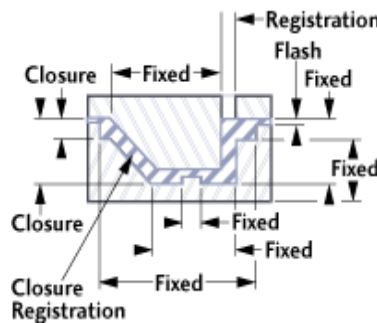


RMA Classes and Tolerances for Products Molded in Solid Rubber A Classes

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 | | A1 | | A2 | | A3 | | A4 | |
|-------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| above | up to and including | Fixed ± | Closure ± | Fixed ± | Closure ± | Fixed ± | Closure ± | Fixed ± | Closure ± |
| 0 | 10 | 0.1 | 0.13 | 0.16 | 0.2 | 0.2 | 0.32 | 0.32 | 0.8 |
| 10 | 16 | 0.13 | 0.16 | 0.2 | 0.25 | 0.25 | 0.4 | 0.4 | 0.9 |
| 16 | 25 | 0.16 | 0.2 | 0.25 | 0.32 | 0.32 | 0.5 | 0.5 | 1 |
| 25 | 40 | 0.2 | 0.25 | 0.32 | 0.4 | 0.4 | 0.63 | 0.63 | 1.12 |
| 40 | 63 | 0.25 | 0.32 | 0.4 | 0.5 | 0.5 | 0.8 | 0.8 | 1.25 |
| 63 | 100 | 0.32 | 0.4 | 0.5 | 0.63 | 0.63 | 1 | 1.1 | 1.4 |
| 100 | 160 | 0.4 | 0.5 | 0.63 | 0.8 | 0.8 | 1.3 | 1.25 | 1.6 |

Inch Tolerances (in)

| Nominal Dimension | | A1 | | A2 | | A3 | | A4 | |
|-------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| above | up to and including | Fixed ± | Closure ± | Fixed ± | Closure ± | Fixed ± | Closure ± | Fixed ± | Closure ± |
| 0 | 0.4 | 0.004 | 0.005 | 0.006 | 0.008 | 0.008 | 0.013 | 0.013 | 0.032 |
| 0.4 | 0.63 | 0.005 | 0.006 | 0.008 | 0.01 | 0.01 | 0.016 | 0.016 | 0.036 |
| 0.63 | 1 | 0.006 | 0.006 | 0.01 | 0.013 | 0.013 | 0.02 | 0.02 | 0.04 |
| 1 | 1.6 | 0.008 | 0.01 | 0.013 | 0.016 | 0.016 | 0.025 | 0.025 | 0.045 |
| 1.6 | 2.5 | 0.01 | 0.013 | 0.016 | 0.02 | 0.02 | 0.032 | 0.032 | 0.05 |
| 2.5 | 4 | 0.013 | 0.016 | 0.02 | 0.025 | 0.025 | 0.04 | 0.04 | 0.056 |
| 4 | 6.3 | 0.016 | 0.02 | 0.025 | 0.032 | 0.032 | 0.05 | 0.05 | 0.063 |



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RMA MO-1 provides the necessary information to designate a dimensional tolerances, finish tolerances, and flash tolerances for molded rubber parts. The RMA designation is specified as follows:

RMA A2 - F3 - T.003

Specification

RMA A2 - F3 - T.003

RMA simply refers to the RMA MO-1 specification as the controlling document for the tolerance designation.

Class

RMA A2 - F3 - T.003

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 RMA.

| Class | Name | Definition |
|-------|----------------|--|
| A1 | High 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. |
| A2 | Precision | 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 be required. |
| A3 | Commercial | This class indicates a general grade or commercial product. This is the most commonly used class. |
| A4 | 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.