



**OBJECTIVE:** To check the rubber products properly within specified range given to avoid rejection occurred due to size variation.

**INSTRUMENTS:** vernier, scale, measuring tape, depth gauge, micrometer, height gauge etc.

**METHOD USED:** RMA MO-1 (2005)

**PROCEDURE:**

1. Check if customer has provided any tolerance chart over a drawing or tolerance is specified separately. If not then, use the following methods to check the parts within a given range.
2. Tolerance chart is divided in to mainly three categories- Moulding products, extruded products, sponge products
3. While checking the products choose range from nominal dimensions. For example if specified value of moulding part is 18.3 mm then choose range from 6.3 to 16 and tolerance to be considered will be 0.25 for fixed dimensions while 0.35 for closure dimensions.
4. 'F' indicates fixed dimensions which are not affected by flash & 'C' indicates closure dimensions which may be affected by flash.
5. '\*value 'should be considered as multiplication of specified value.



Following are the tolerances to be considered while checking the parts:

### 1) MOULDING TOLERANCE : STD. USED RMA MO-1(2005)

NOMINAL DIMENSIONS (mm)		CLASS A2	
ABOVE	UP TO INCLUDING	F (+/-)	C (+/-)
0	10	0.16	0.2
10	16	0.2	0.25
16	25	0.2	0.32
25	40	0.32	0.4
40	63	0.4	0.5
63	100	0.5	0.63
100	160	0.63	0.8
160	ABOVE	*0.004	*0.005



## 2) EXTRUSION TOLERANCE: STD. USED RMA MO-1 (2005)

### FOR SOLID RUBBER:

### 2.1 FOR CROSS SECTIONS:

NOMINAL DIMENSIONS (mm)		CLASS E2
ABOVE	UP TO INCLUDING	(+/-)
0	1.5	0.25
1.5	2.5	0.35
2.5	4.0	0.40
4.0	6.3	0.50
6.3	10	0.70
10	16	0.80
16	25	1.00
25	40	1.30
40	63	1.60
63	100	2.00



## 2.2 UNSPLICED CUT LENGTH (OPEN LENGTH/CUT PARTS FROM EXTRUSION):

NOMINAL DIMENSIONS (mm)		CLASS L2
ABOVE	UP TO INCLUDING	(+/-)
0	40	1
40	63	1.3
63	100	1.6
100	160	2.0
160	250	2.5
250	400	3.2
400	630	4.0
630	1000	5.0
1000	1600	6.3
1600	2500	10.0
2500	4000	12.5
4000	ABOVE	*0.003



## 2.3 SPLICED LENGTH (JOINT SECTION LENGTHS LIKE RECTANGLES ETC.)

NOMINAL DIMENSIONS (mm)		CLASS S2
ABOVE	UP TO INCLUDING	(+/-)
0	250	6.3
250	400	7.1
400	630	8.0
630	1000	9.0
1000	1600	10.0
1600	2500	11.2
2500	ABOVE	12.5



### 3. SPONGE MATERIAL

#### 3.1 For Moulding parts

##### 3.1.1 THICKNESS for moulding products (sponge)

NOMINAL DIMENSIONS (mm)		CLASS ATH3	CLASS STH3
ABOVE	UP TO INCLUDING	(other rubbers) (+/-)	(silicone rubber only)
0	3.15	0.5	(+ 0.8) to (-0.4)
3.15	6.3	0.63	(+/-) 0.8
6.3	12.5	0.8	(+/-) 1.0
12.5	25	1.0	(+/-) 1.25
25	50	1.25	(+/-) 1.6
50	ABOVE	*0.03	*0.03



### 3.1.2 WIDTH & LENGTH for moulding products (sponge)

NOMINAL DIMENSIONS (mm)		CLASS AL3	CLASS SL3
ABOVE	UP TO INCLUDING	(other rubbers) (+/-)	(silicone rubber only) (+/-)
0	6.3	0.63	0.8
6.3	12.5	1	1.0
12.5	25	1.6	1.25
25	50	2	1.6
50	100	2.5	*0.03
100	200	3.2	*0.03
200	400	4	*0.03
400	800	5	*0.03
800	1600	*0.006	*0.03
1600	3200	*0.012	*0.03
3200	ABOVE	*0.025	*0.03



### 3.2 For Extruded parts

#### 3.2.1 Cross section for extruded parts (sponge)

NOMINAL DIMENSIONS (mm)		TUBE	SHEET/STRIPS	RECTANGULAR	IRREGULAR SHAPE
ABOVE	UP TO INCLUDING	CLASS BEW 1	CLASS BTH 2 (+/-)	CLASS BER 2 (+/-)	CLASS BEC 2 (+/-)
0	3.15	+ 1.6	0.8	0.8	0.5
3.15	6.3	+ 1.6	1	0.8	0.5
6.3	12.5	+ 1.6	1.6	0.8	1
12.5	25	+ 3.2	2.5	1.25	2
25	40	+ 3.2	*0.1	2	3.2
40	80	+ 3.2	*0.1	3.2	*0.08
80	ABOVE	+ 3.2	*0.1	*0.08	*0.08

#### 3.2.2 Cut lengths for extruded parts (sponge)

NOMINAL DIMENSIONS (mm)		CLASS BEL 2 (+/-)
ABOVE	UP TO INCLUDING	
0	80	1.6
80	160	3.2
160	315	6.3
315	630	12.5
630	1250	25
1250	ABOVE	*0.03