

## ISO 3302-1:1996 (E)

### E and L class

**General:** Extruded rubber products require greater tolerances in manufacture than those produced by moulding since the rubber undergoes die swell and, during subsequent vulcanization, shrinkage and deformation usually occur.

Deformation can be reduced by the use of supports during vulcanization, the nature of the support depending on the section being produced, and the degree of control required. Such features determine the class of tolerance applicable to given dimensions.

In the case of certain synthetic rubbers, extrusion class E1 tolerances are not directly obtainable.

**Classification:** Three classes of tolerance on nominal cross-sectional dimensions of unsupported extrusions:

E1	high quality
E2	good quality
E3	non-critical

### TOLERANCES ON CROSS-SECTIONAL DIMENSIONS OF UNSUPPORTED EXTRUSIONS

Nominal dimension		Values in mm		
above	up to and including	Clase E1	Clase E2	Clase E3
		±	±	±
0	1,5	0,15	0,25	0,40
1,5	2,5	0,20	0,35	0,50
2,5	4	0,25	0,40	0,70
4	6,3	0,35	0,50	0,80
6,3	10	0,40	0,70	1,00
10	16	0,50	0,80	1,30
16	25	0,70	1,00	1,60
25	40	0,80	1,30	2,00
40	63	1,00	1,60	2,50
63	100	1,30	2,00	3,20

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#### TOLERANCES ON CUT LENGTH OF EXTRUSIONS

Values in mm  
(unless indicated  
otherwise)

Nominal Length		Clase L1	Clase L2	Clase L3
above	up to and including	±	±	±
0	40	0,70	1,00	1,60
40	63	0,80	1,30	2,00
63	100	1,00	1,60	2,50
100	160	1,30	2,00	3,20
160	250	1,60	2,50	4,00
250	400	2,00	3,20	5,00
400	630	2,50	4,00	6,30
630	1000	3,20	5,00	10,00
1000	1600	4,00	6,30	12,50
1600	2500	5,00	10,00	16,00
2500	4000	6,30	12,50	20,00
4000	—	0,16%	0,32%	0,50%

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