

## ISO 3302-1:1996 (E)

### M-Class

**Fixed dimensions and closure dimensions:** In moulding a rubber product, more rubber is used than is required to fill the cavity, and the excess is flashed. This flash tends to prevent the mould sections from fully closing and thus affects the finished part dimensions.

*NOTE For products moulded by transfer or injection, it is possible to regard all dimensions as fixed.*

Two sets of tolerances, F and C, are given and are de-fined below.

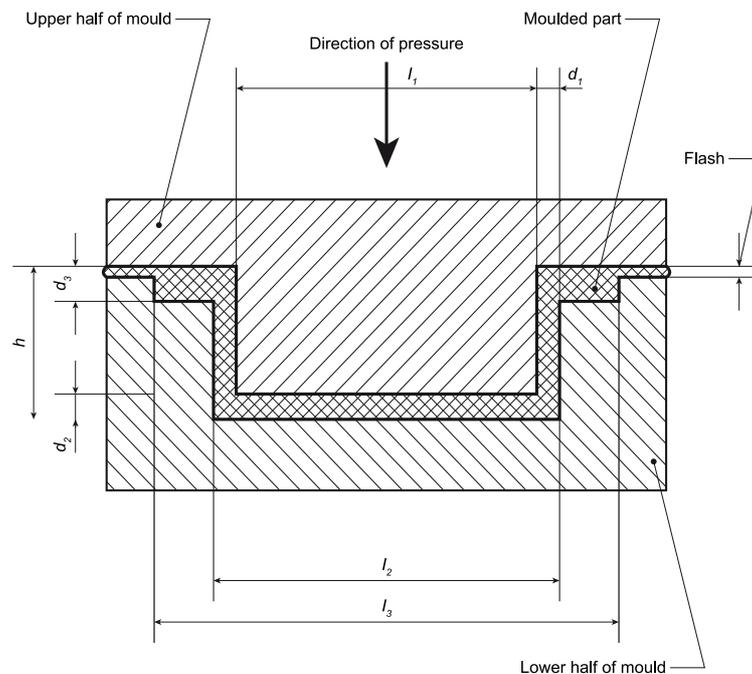
**Fixed dimensions (F):** Dimensions which are not affected by deforming influences like flash thickness or lateral displacement of different mould parts (upper and lower parts or cores). See figure 1, dimensions  $l_1$ ,  $l_2$  and  $l_3$ .

**Closure dimensions (C):** Dimensions which can be altered by variation in the flash thickness or lateral displacement of different mould parts. See figure 1, dimensions  $d_1$ ,  $d_2$ ,  $d_3$  and  $h$ .

*NOTE The dimensions for F and C can only be tolerated insofar as they are independent of each other.*

**Tolerances:** The tolerances to be applied shall be chosen, by agreement between the interested parties, from the different classes of tolerance in table 1.

Standard tolerances are given in table 1. Fixed tolerances (F) are related by size to each dimension, but all closure tolerances (C) are determined by the largest closure dimension ( $h$ , see figure 1).



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#### TOLERANCES FOR MOULDINGS

Values in mm (unless indicated otherwise)

Nominal Dimension		Clase M1		Clase M2		Clase M3		Clase M4
above	up to and including	F	C	F	C	F	C	F and C
		±	±	±	±	±	±	±
0	4	0,08	0,10	0,10	0,15			
4	6,3	0,10	0,12	0,15	0,20	0,25	0,40	0,50
6,3	10	0,10	0,15	0,20	0,20	0,30	0,50	0,70
10	16	0,15	0,20	0,20	0,25	0,40	0,60	0,80
16	25	0,20	0,20	0,25	0,35	0,50	0,80	1,00
25	40	0,20	0,25	0,35	0,40	0,60	1,00	1,30
40	63	0,25	0,35	0,40	0,50	0,80	1,30	1,60
63	100	0,35	0,40	0,50	0,70	1,00	1,60	2,00
100	160	0,40	0,50	0,70	0,80	1,30	2,00	2,50
160	–	0,3%	0,4%	0,5%	0,7%	0,8%	1,3%	1,5%