

International Standard



727

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Fittings of unplasticized polyvinyl chloride (PVC-U), chlorinated polyvinyl chloride (PVC-C) or acrylonitrile/butadiene/styrene (ABS) with plain sockets for pipes under pressure — Dimensions of sockets — Metric series

Raccords en polychlorure de vinyle non plastifié (PVC-U), en polychlorure de vinyle chloré (PVC-C) ou en acrylonitrile/butadiène/styrène (ABS), à emboîtements lisses pour tubes sous pression — Dimensions des emboîtures — Série métrique

Fourth edition — 1985-09-15

UDC 621.643.4 : 678.743.22 : 678.745.32-139

Ref. No. ISO 727-1985 (E)

Descriptors : unplasticized polyvinyl chloride, chlorinated polyvinyl chloride, acrylonitriles, pressure equipment, plastics products, pipe fittings, dimensions.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 727 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*.

ISO 727 was first published in 1973. This fourth edition cancels and replaces the third, of which it constitutes a technical revision. The field of application has been extended to cover fittings in chlorinated polyvinyl chloride (PVC-C) and acrylonitrile/butadiene/styrene (ABS).

Fittings of unplasticized polyvinyl chloride (PVC-U), chlorinated polyvinyl chloride (PVC-C) or acrylonitrile/butadiene/styrene (ABS) with plain sockets for pipes under pressure — Dimensions of sockets — Metric series

1 Scope and field of application

This International Standard specifies the dimensions of plain sockets on fittings made from unplasticized polyvinyl chloride (PVC-U), chlorinated polyvinyl chloride (PVC-C) or acrylonitrile/butadiene/styrene (ABS), intended for connecting by solvent cementing to pipes of the corresponding material for use under pressure. The resulting joint does not require mechanical anchorage.

2 Socket length (minimum)

The socket length L (see the figure) is given by the equation

$$L = 0,5 d_e + 6 \text{ mm, with a minimum of 12 mm,}$$

where d_e is the outside diameter of the pipe.

This socket length is applicable for socket fittings for pipes under pressure of any diameter to be connected (see tables 1 and 2).

3 Socket inside diameter

The mean inside diameter of a socket shall comply with the requirements of table 1 for fittings in PVC-U and PVC-C, and of table 2 for ABS fittings.

4 Out-of-roundness tolerances of socket inside diameter

Maximum out-of-roundness tolerances (maximum diameter — minimum diameter) shall be:

- equal to $0,007 d_e$, or
- equal to 0,2 mm if $0,007 d_e < 0,2$ mm.

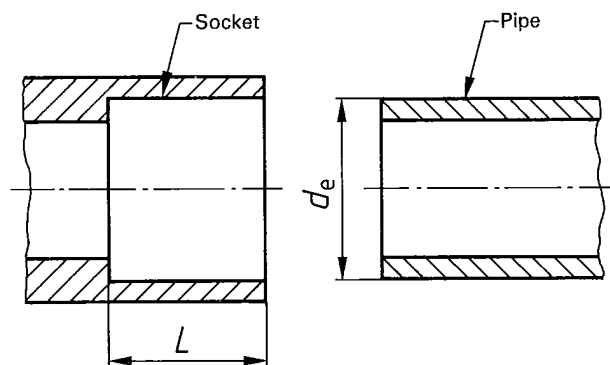


Figure — Socket dimensions

Table 1 — Dimensions of socket — PVC-U and PVC-C fittings

Dimensions in millimetres

Nominal outside diameter of pipe — Nominal inside diameter of socket d_e	Minimum socket length L	Mean socket inside diameter at midpoint of socket depth (for joint with clearance)	
		min.	max.
10	12,0	10,1	10,3
12	12,0	12,1	12,3
16	14,0	16,1	16,3
20	16,0	20,1	20,3
25	18,5	25,1	25,3
32	22,0	32,1	32,3
40	26,0	40,1	40,3
50	31,0	50,1	50,3
63	37,5	63,1	63,3
75	43,5	75,1	75,3
90	51,0	90,1	90,3
110	61,0	110,1	110,4
125	68,5	125,1	125,4
140	76,0	140,2	140,5
160	86,0	160,2	160,5
200	106,0	200,3	200,6
225	118,5	225,3	225,6

NOTE — The mean inside diameter of the socketed portion of the fitting is defined as being the arithmetical mean of two diameters measured perpendicular to each other at the midpoint of the socket depth. The maximum included angle of the socketed portion of the fittings shall not exceed $0^{\circ} 30'$.

Table 2 — Dimensions of socket — ABS fittings

Dimensions in millimetres

Nominal outside diameter of pipe — Nominal inside diameter of socket d_e	Minimum socket length L	Mean socket inside diameter at midpoint of socket depth (for joint with clearance)	
		min.	max.
12	12,0	12,1	12,30
16	14,0	16,1	16,30
20	16,0	20,1	20,30
25	18,5	25,1	25,30
32	22,0	32,1	32,30
40	26,0	40,1	40,30
50	31,0	50,1	50,30
63	37,5	63,1	63,30
75	43,5	75,1	75,35
90	51,0	90,1	90,35
110	61,0	110,1	110,45
125	68,5	125,1	125,45
140	76,0	140,2	140,55
160	86,0	160,2	160,55
200	106,0	200,3	200,65
225	118,5	225,3	225,75
250	131,0	250,4	250,85
280	146,0	280,4	280,95
315	163,5	315,5	316,05

NOTE — The mean inside diameter of the socketed portion of the fitting is defined as being the arithmetical mean of two diameters measured perpendicular to each other at the midpoint of the socket depth. The maximum included angle of the socketed portion of the fittings shall not exceed $0^{\circ} 30'$.