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मानक

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IS 10124-2 (2009): Fabricated PVC-U Fittings for Potable Water Supplies - Specification, Part 2: Specific Requirements for Sockets [CED 50: Plastic Piping System]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक
पेय जल आपूर्ति के लिए सविरंचित
पी वी सी-यू फिटिंगें — विशिष्ट
भाग 2 साकेटों की विशिष्ट अपेक्षाएँ
(दूसरा पुनरीक्षण)

Indian Standard
FABRICATED PVC-U FITTINGS FOR POTABLE WATER
SUPPLIES — SPECIFICATION
PART 2 SPECIFIC REQUIREMENTS FOR SOCKETS
(*Second Revision*)

ICS 23.040.45; 91.140.60

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Price Group 2

FOREWORD

This Indian Standard (Part 2) (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastics Piping Systems Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1982 and revised in 1988. In this revision, following modifications have been made:

- a) Sizes and classes of fittings have been aligned with IS 4985 : 2000 'Unplasticized PVC pipes for potable water supplies — Specification'.
- b) Requirements for sockets for elastomeric sealing ring joints have also been included.

The requirements of fabricated PVC-U fittings are covered in thirteen parts. The other parts in the series are:

- Part 1 General requirements
- Part 3 Specific requirements for straight reducers
- Part 4 Specific requirements for caps
- Part 5 Specific requirements for equal tees
- Part 6 Specific requirements for flanged tail pieces with metallic flanges
- Part 7 Specific requirements for threaded adaptors
- Part 8 Specific requirements for 90° bends
- Part 9 Specific requirements for 60° bends
- Part 10 Specific requirements for 45° bends
- Part 11 Specific requirements for 30° bends
- Part 12 Specific requirements for 22 ½° bends
- Part 13 Specific requirements for 11 ¼° bends

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the results of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

FABRICATED PVC-U FITTINGS FOR POTABLE WATER SUPPLIES — SPECIFICATION

PART 2 SPECIFIC REQUIREMENTS FOR SOCKETS

(Second Revision)

1 SCOPE

This standard (Part 2) lays down the requirements for manufacture, dimensions and marking for fabricated PVC-U sockets for potable water supplies.

2 REFERENCES

The standards listed below contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
4985:2000	Unplasticized PVC pipes for potable water supplies — Specification (<i>third revision</i>)
10124 (Part 1): 2009	Specification for fabricated PVC-U fittings for potable water supplies — Specification: Part 1 General requirements

3 REQUIREMENTS**3.1 General**

The general requirements for materials, sizes, tests, sampling and criteria for conformity shall conform to IS 10124 (Part 1).

3.2 Manufacture

3.2.1 Typical illustration of sockets is given in Fig. 1 and Fig. 2.

3.2.2 Dimensions

The dimensions of sockets shall comply with those

given in Table 1 read with Fig. 1. The dimensions for sockets for elastomeric sealing ring joints shall comply with those given in Table 2 read with Fig. 2.

4 MARKING

4.1 Each socket shall be clearly and indelibly marked with the following information:

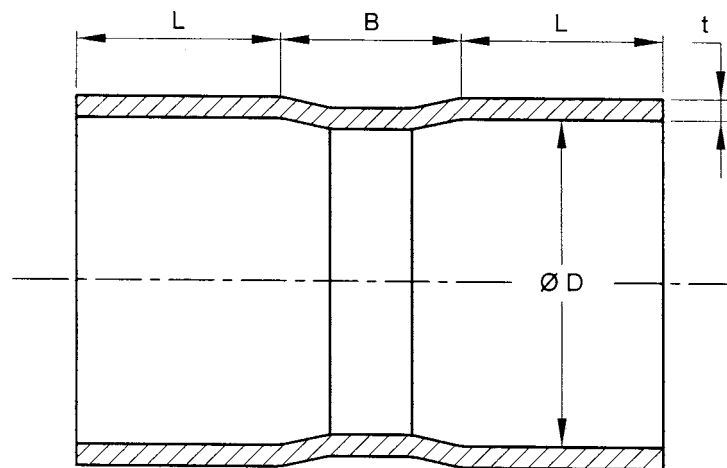
- a) Manufacturer's name or identification mark,
- b) Size of the socket and the appropriate class (working pressure) of IS 4985 to which the pressure rating of the fitting corresponds, and
- c) Socket shall be marked in colour as indicated below for different classes of fittings:

<i>Class of the Fittings</i>	<i>Colour</i>
Class 1 (0.25 MPa)	Red
Class 2 (0.4 MPa)	Blue
Class 3 (0.6 MPa)	Green
Class 4 (0.8 MPa)	Brown
Class 5 (1.0 MPa)	Yellow
Class 6 (1.25 MPa)	Black
Plumbing	Pink

4.2 BIS Certification Marking

Each socket may also be marked with the Standard Mark.

4.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which a licence for the use of the Standard Mark may be granted to the manufacturer or producer may be obtained from the Bureau of Indian Standards.



D = mean socket internal diameter of mid-point of socket length in accordance with IS 10124 (Part 1),
 L = minimum socket length as specified in IS 10124 (Part 1), and
 t = minimum wall thickness of sockets are calculated on the basis of 90 percent of the minimum wall thickness of the corresponding size and pressure class of pipe rounded off to the next higher 0.1 mm.

NOTE — This drawing is only intended to define the terms used in Table 1 and is not intended to illustrate specific design features.

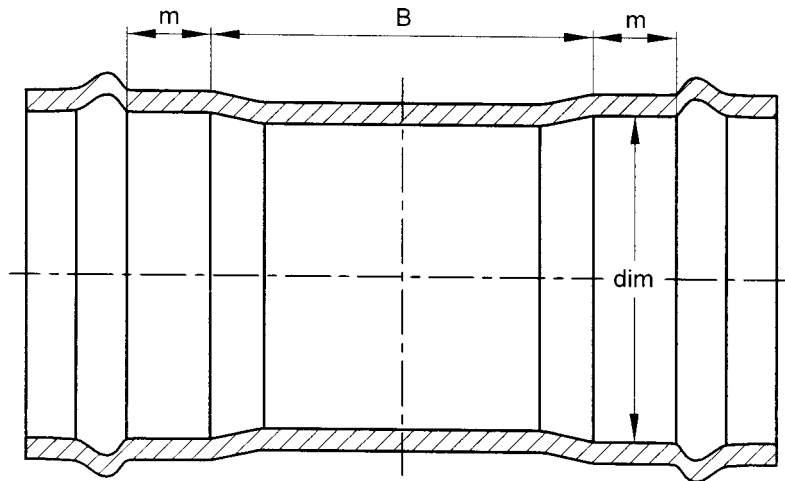
FIG. 1 SOCKET

Table 1 Dimensions of Socket

(Clause 3.2.1, and Fig.1)

All dimensions in millimetres.

Sl No.	Nominal Size	B, Min	Minimum Wall Thickness (t) for Working Pressure MPa						Plumbing
			0.25	0.4	0.6	0.8	1.0	1.25	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	20	12	—	—	—	—	1.0	1.3	2.5
ii)	25	12	—	—	—	1.1	1.3	1.5	2.6
iii)	32	12	—	—	—	1.4	1.6	1.9	3.1
iv)	40	15	—	—	1.3	1.6	1.9	2.5	3.3
v)	50	15	—	—	1.5	2.1	2.5	3.0	3.4
vi)	63	20	—	1.4	2.0	2.5	3.2	3.8	—
vii)	75	20	—	1.7	2.4	3.1	3.8	4.6	—
viii)	90	35	1.2	1.9	2.8	3.6	4.5	5.5	—
ix)	110	35	1.5	2.3	3.4	4.4	5.5	6.7	—
x)	125	35	1.7	2.7	3.9	5.1	6.3	7.6	—
xi)	140	45	1.8	2.9	4.4	5.7	7.0	8.6	—
xii)	160	45	2.1	3.4	4.9	6.5	8.0	9.8	—
xiii)	180	45	2.4	3.8	5.5	7.2	9.0	10.9	—
xiv)	200	45	2.7	4.2	6.2	8.0	10.0	12.3	—
xv)	225	55	3.0	4.7	6.9	9.0	11.2	13.8	—
xvi)	250	55	3.3	5.2	7.7	10.0	12.5	15.3	—
xvii)	280	55	3.7	5.8	8.6	11.3	13.9	17.1	—
xviii)	315	55	4.2	6.5	9.7	12.6	15.6	19.3	—
xix)	355	65	4.6	7.3	10.8	14.3	17.7	21.7	—
xx)	400	65	5.3	8.2	12.2	16.1	19.8	24.5	—
xxi)	450	65	5.9	9.3	13.7	18.0	22.4	27.5	—
xxii)	500	65	6.5	10.3	15.3	20.1	24.8	30.5	—
xxiii)	560	75	7.3	11.6	17.2	22.4	27.8	34.2	—
xxiv)	630	75	8.2	13.0	19.2	25.2	31.3	38.4	—



t = minimum wall thickness of the fitting except sealing ring groove.

NOTE — This drawing is only intended to define the terms used in Table 2 and is not intended to illustrate specific design features.

FIG. 2 SOCKET FOR ELASTOMERIC SEALING RING JOINT

Table 2 Dimensions of Socket for Elastomeric Sealing Ring Joint
(Clause 3.2.2, and Fig. 2)

All dimensions in millimetres.

Sl No.	Nominal Size	B , Min	Minimum Wall Thickness (t) for Working Pressure MPa				
			0.4 (Class 2)	0.6 (Class 3)	0.8 (Class 4)	1.0 (Class 5)	1.25 (Class 6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	63	250	—	2.0	2.6	3.2	3.9
ii)	75	250	—	2.4	3.1	3.8	4.6
iii)	90	250	—	2.8	3.6	4.5	5.5
iv)	110	250	2.3	3.4	4.4	5.5	6.8
v)	125	250	2.7	3.9	5.1	6.3	7.7
vi)	140	270	2.9	4.4	5.7	7.0	8.6
vii)	160	270	3.4	4.9	6.5	8.0	9.9
viii)	180	290	3.8	5.5	7.2	9.0	11.0
ix)	200	320	4.2	6.2	8.0	10.0	12.3
x)	225	320	4.7	6.9	9.0	11.2	13.8
xi)	250	350	5.2	7.7	10.1	12.5	15.3
xii)	280	350	5.8	8.6	11.3	13.9	17.1
xiii)	315	430	6.5	9.7	12.6	15.6	19.3
xiv)	355	430	7.3	10.8	14.3	17.7	21.7
xv)	400	450	8.2	12.2	16.1	19.8	24.5
xvi)	450	500	9.3	13.7	18.0	22.4	27.5
xvii)	500	550	10.3	15.3	20.1	24.8	30.5
xviii)	560	550	11.6	17.2	22.4	27.8	34.2
xix)	630	600	13.0	19.2	25.2	31.3	38.5

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Amendments Issued Since Publication

Amendment No.	Date of Issue	Text Affected

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