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IS 8008-9 (2003): Injection Moulded/Machined High Density Polyethylene (HDPE) Fittings for Potable Water Supplies, Part 9: Specific Requirements for Ends Caps [CED 50: Plastic Piping System]



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भारतीय मानक
पेयजल पूर्ति के लिए अन्तःक्षेपण संचकित
एच डी पी ई फिटिंगें—विशिष्टि
भाग 9 सिरे की कैपो की विशिष्टि अपेक्षाएँ
(पहला पुनरीक्षण)

Indian Standard

INJECTION MOULDED/MACHINED HIGH DENSITY
POLYETHYLENE (HDPE) FITTINGS FOR POTABLE
WATER SUPPLIES — SPECIFICATION

PART 9 SPECIFIC REQUIREMENTS FOR ENDS CAPS

(First Revision)

ICS 83.140.30;91.140.60

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (Part 9) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastic Piping System Sectional Committee had been approved by the Civil Engineering Division Council.

This standard covers general requirements for injection moulded/machined HDPE fittings which are used for connection by welding process to HDPE pipes covered by IS 4984 : 1995 'High density polyethylene pipe for water supply (*fourth revision*)'.

This standard was first published in 1976. Keeping in view the developments in this field and considering revision of IS 4984 this standard has been revised.

The requirements of injection moulded/machined HDPE fittings are covered in nine parts. The other parts in this series are:

- (Part 1) : 2003 General requirements for fittings
- (Part 2) : 2003 Specific requirements for 90° bends
- (Part 3) : 2003 Specific requirements for 90° tees
- (Part 4) : 2003 Specific requirements for reducers
- (Part 5) : 2003 Specific requirements for ferrule reducers
- (Part 6) : 2003 Specific requirements for pipe ends
- (Part 7) : 2003 Specific requirements for sandwich flanges
- (Part 8) : 2003 Specific requirements for reducing tees

All revised parts have been aligned with IS 4984 with respect to grade of material, dimensional requirements, testing procedures and sampling methodology.

Provisions has been made for rewelding, in case any weld gets rejected. Weld length had been kept constant with a uniform tolerance.

Drawings have been revised from short neck pipe ends to long neck pipe ends. The range of diameter of fittings, weld length and clarity of the dimensions in the drawings had been incorporated in each part of the standard, wherever applicable.

This standard covers general requirements for materials, manufacture, dimension and tolerances of reducing tees. Specific requirement of different types of fittings are covered in separate parts of this standard.

Fittings from 20 mm to 315 mm are manufactured by the injection moulding methods and machined, wherever so required and fittings of 355 mm and above shall be manufactured by machining process from thick walled extruded pipes or compression moulded slabs.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result 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

INJECTION MOULDED/MACHINED HIGH DENSITY POLYETHYLENE (HDPE) FITTINGS FOR POTABLE WATER SUPPLIES — SPECIFICATION

PART 9 SPECIFIC REQUIREMENTS FOR ENDS CAPS

(First Revision)

1 SCOPE

This standard (Part 9) covers the requirements for material, manufacture, dimensions, tolerances and marking of all types of injection moulded and machined HDPE end caps for potable water supplies.

2 REFERENCES

The following standards 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 agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below:

<i>IS No.</i>	<i>Title</i>
8008 (Part 1) : 2003	Injection moulded/machined high density polyethylene (HDPE) fittings for potable water supplies — Specification: Part 1 General requirements for fittings
4984 : 1995	High density polyethylene pipe for water supply (<i>fourth revision</i>)

3 REQUIREMENTS

3.1 General

The general requirements for material, grade, sizes, methods of test, sampling and inspection shall conform to IS 8008 (Part 1).

End caps from 20 mm to 250 mm shall be manufactured by the injection moulding methods and machined wherever so required.

3.2 Manufacture

3.2.1 A typical illustration of end cap is shown in Fig. 1.

3.2.2 *Laying Length*

The overall laying length and tolerances thereon shall comply with those given in Table 1 read with Fig. 1.

3.2.3 The outside diameters and wall thickness of fitting at ends shall comply with requirements given in 8 of IS 8008 (Part 1).

4 MARKING

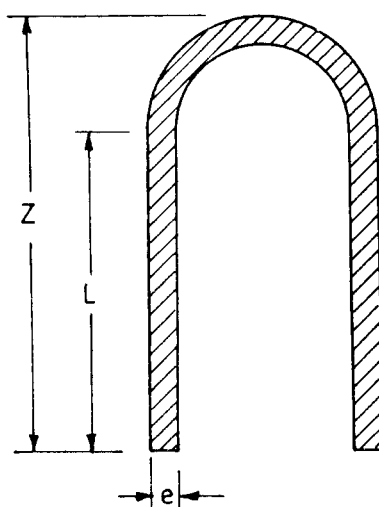
4.1 Each end cap shall be clearly marked at a prominent place, with the following information:

- a) Identification of source of manufacture, and
- b) The size of the fittings, grade of material and appropriate class (working pressure) to which the pressure rating of the fitting corresponds.

4.2 BIS Certification Marking

Each end cap 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 manufacturers or the producers may be obtained from the Bureau of Indian Standards.



e – Wall thickness corresponding to IS 4984.

FIG. 1 END CAP

Table 1 Dimensions of End Cap

(Clause 3.2.2)

All dimensions in millimetres.

Sl No.	Nominal Diameter	Tabular Length	Laying Length
	D	L	Z
(1)	(2)	(3)	(4)
i)	20	25	37
ii)	25	25	40
iii)	32	30	45
iv)	40	30	50
v)	50	30	55
vi)	63	40	65
vii)	75	45	75
viii)	90	55	90
ix)	110	60	100
x)	125	45	70
xi)	140	45	75
xii)	160	50	85
xiii)	180	50	100
xiv)	200	60	110
xv)	225	60	115
xvi)	250	65	125

NOTE — Tolerance on various dimensions are given below:

Dimension	Tolerances
Tabular length, L	± 2 mm
Laying length, Z	± 2 mm

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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