भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

व्यापक परिचालन मसौदा

हमारा संदर्भ : सीईडी 50/टी -101 **17 जून 2025**

तकनीकी समिति : प्लास्टिक पाइपिंग पद्धति विषय समिति, सीईडी 50

प्राप्तकर्ता :

1. **सिविल इंजीनियरिंग विभाग परिषद, सीईडीसी के सभी सदस्य**
2. **प्लास्टिक पाइपिंग पद्धति, सीईडी 50 के सभी सदस्य**
3. **सीईडी 50 उपसमिति एंव इसकी पैनल के सभी सदस्य**
4. **रूचि रखने वाले अन्य निकाय।**

महोदया/महोदय,

निम्नलिखित मसौदा संलग्न है:

प्रलेख संख्या	शीर्षक
सीईडी 50 (28191)WC	**जल की आपूर्ति के लिए उन्मुख असुघटियत पॉलीविनाइल क्लोराइड (पीवीसी-ओ) पाइप — विशिष्टि** (*आई एस 16647: 2017 का दूसरा संशोधन*) (ICS 23.040.20; 23.040.45; 91.140.60)

कृपया इस मसौदे का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजे कि यह मसौदा प्रकाशित हो तो इस पर अमल करने में, आपको व्यवसाय अथवा कारोबार में क्या कठिनाइयॉं आ सकती हैं।

सम्मतियॉं भेजने की अंतिम तिथि: 17 जुलाई 2025

सम्मति यदि कोई हो तो कृपया अधोहस्ताक्षरी को उपरिलिखित पते पर संलग्न फोर्मेट में भेजें या ced50@bis.gov.in पर ईमेल कर दें या सम्मितयाँ बीआईएस ई-गवर्नेंसस पोर्टल, https://www.services.bis.gov.in/php/BIS_2.0/dgdashboard/draft/wcdraftDepartment के माध्यम से ऑनलाइन भी भेजी जा सकती हैं।

यदि कोई सम्मति प्राप्त नहीं होती है अथवा सम्मति में केवल भाषा संबंधी त्रुटि हुई तो उपरोक्त प्रलेख को यथावत अंतिम रूप दे दिया जाएगा। यदि सम्मति तकनीकी प्रकृति की हुई तो विषय समिति के अध्यक्ष के परामर्श से अथवा उनकी इच्छा पर आगे की कार्यवाही के लिए विषय समिति को भेजे जाने के बाद प्रलेख को अंतिम रूप दे दिया जाएगा।

यह प्रलेख भारतीय मानक ब्यूरो की वैबसाइट **www.bis.gov.in** पर भी उपलब्ध हैं।

धन्यवाद।

भवदीय

ह/-
(द्वैपायन भद्र)
वै. 'ई'/ निर्देशक और प्रमुख (सिविल इंजीनियरिंग)

सलंग्न: उपरिलिखित

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

DRAFT IN WIDE CIRCULATION

DOCUMENT DESPATCH ADVICE

TECHNICAL COMMITTEE:	Reference	Date
	CED 50/T-101	17 June 2025

PLASTIC PIPING SYSTEMS SECTIONAL COMMITTEE, CED 50

ADDRESSED TO:

1. All Members of Civil Engineering Division Council, CEDC
2. All Members of Plastic Piping Systems Sectional Committee, CED 50
3. All Members of Subcommittees and Panels under CED 50
4. All other interested

Dear Madam/Sir,

Please find enclosed the following draft:

Doc. No.	Title
CED 50 (28191)WC	**Oriented Unplasticized Polyvinyl Chloride (PVC-O) Pipes for Water Supply — Specification** (*Second Amendment to* IS 16647:2017) (ICS 23.040.20; 23.040.45; 91.140.60)

Kindly examine the draft and forward your views stating any difficulties which you are likely to experience in your business or profession, if this is finally adopted as National Standard.

Last Date for comments: 17 July 2025

Comments if any, may please be made in the attached format and mailed to the undersigned at the above address or preferably through e-mail to ced50@bis.gov.in. The comments may preferably be shared in the prescribed template through the BIS Online portal at https://www.services.bis.gov.in/php/BIS_2.0/dgdashboard/draft/wcdraftDepartment . Alternatively, the comments may be sent through the attached format for consideration by the BIS' Sectional Committee for necessary action.

In case no comments are received or comments received are of editorial nature, you will kindly permit us to presume your approval for the above document as finalized. However, in case comments, technical in nature are received, then it may be finalized either in consultation with the Chairman, Sectional Committee or referred to the Sectional Committee for further necessary action if so desired by the Chairman, Sectional Committee.

The document is also hosted on BIS website **www.bis.gov.in** .

Thanking you,

Yours Faithfully,

Sd/-

(Dwaipayan Bhadra)

Sc. 'E'/Director and Head (Civil Engg.)

Encl: As above

FORMAT FOR SENDING COMMENTS ON BIS DOCUMENTS

(Please use A4 size sheet of paper only and type within fields indicated. Comments on each clause/subclause/table/fig etc. be started on a fresh box. Information in column 5 should include reasons for the comments, and those in column 4 should include suggestions for modified wording of the clauses when the existing text is found not acceptable. Adherence to this format facilitates Secretariat's work) {Please e-mail your comments to ced50@bis.gov.in}

DOC. NO.	**Doc: CED 50 (28191) WC**
TITLE	**Corrugated and Semi-Corrugated Asbestos Cement Sheets — Specification (*Third Revision*)** (*Second Amendment to IS 16647: 2017*) (ICS 23.040.20; 23.040.45; 91.140.60)
LAST DATE OF COMMENTS	**17 July 2025**
NAME OF THE COMMENTATOR/ ORGANIZATION	

Sl No.	Clause/Sub-clause/Para No.	Comments/Suggestions	Modified Wording of the Clause	Reasons/ Justifications for the Proposed Changes
(1)	(2)	(3)	(4)	(5)

DRAFT AMENDMENT NO. 2 JUNE 2025

TO

IS 16647: 2017 ORIENTED UNPLASTICIZED POLYVINYL CHLORIDE (PVC-O) PIPES FOR WATER SUPPLY — SPECIFICATION

(*Title*) - Substitute the following for the existing title:

'Oriented Unplasticized Polyvinyl chloride (PVC-O) Pipes for Water Supply and Sewage — Specification

(*Foreword, second para, first sentence*) − Substitute the following for the existing:

'Unplasticized polyvinyl chloride pipes have been used in India for water supply buried drainage, sewage and treated waste water'.

(*Foreword*, *second para*, *last sentence*)− Substitute the following:

'This standard covers requirements for PVC-O pipes for water supply , buried drainage, sewage and treated waste water intended to be used underground, or above ground but not exposed to direct sunlight'.

(*Foreword*, *last para*) — Substitute 'IS 2 : 2022 Rules for rounding off numerical values (*second revision*)' *for* 'IS 2 : 1960 Rules for rounding off numerical values (*revised*)'.

(*Page* 1, *clause* **1.1**)− Substitute the following for the existing clause:

'This standard specifies the requirements of Oriented Unplasticized Polyvinyl Chloride (PVC-O) Pipes, for piping systems intended to be used underground, or above ground but not exposed to direct sunlight, for water supply, buried drainage, sewerage, and treated wastewater'.

(*Page* 1, *clause* **1.2**, *first sentence*)−Substitute the following for the existing clause:

'The piping system according to this standard is intended for the conveyance of cold water under pressure and is suitable for the conveyance of water, including potable water, sewage, and treated wastewater, up to and including 45 °C, and especially in applications requiring special performance characteristics, such as resistance to impact loads and pressure fluctuations, up to a pressure of 2.5 MPa'

(*Page* 3*, clause* **5.2**) — Substitute the following for the existing clause:

'The addition of the manufacturer's own rework material is permissible. The maximum quantity of the rework material used shall be not more than 5 percent. No other rework material shall be used.'

(*Page* 3, *clause* **5.6.1**, *first sentence*) **—** Insert the following at the end of the sentence:

'In order to establish the validity of classification for the material received by the manufacturer and to get qualified for the production of PVC-O pipes, an additional type approval test for long-term hydrostatic strength at 27 °C for 10 000 h shall be carried out once in accordance with **9.1.1**. The test shall be repeated whenever a change in the material or its source occurs'.

(*Page* 7, *clause* **9.1.1**, *line* 4) **—** Substitute '10 h at 27 °C, 1 000 h at 27 °C and 10 000 h at 27 °C' for '10 h at 27 °C and 1 000 h at 27 °C'.

(*Page* 7, *clause* **9.1.1**, *Table* 10) **—** Insert the following row at the end:

Sl No.	**Test**	**Temperature,** *Min* °C	**Duration,** *Min*	**Circumferential Stress/Hoop Stress, σ**	
(1)	(2)	(3)	(4)	(5)	(6)
iii)	Type [one time type approval test (see **5.6.1**)]	27	10 000	45	50

(*Page* 9, *clause* **9.3**, *Table* 12)– Insert the following row at the end:

'Due to specific jointing techniques used in water supply, sewage, and treated wastewater systems, as well as installation below ground, higher stiffness may be required'.

[*Page* 10, Table 14, *Sl No.* (i), *col* 2] **—** Substitute the following for the existing:

'T = Temperature within ± 5 °C of any temperature between 20 °C and 32 °C'

[*Page* 10, Table 15, *Sl No.* (i), *col* 2] **—** Substitute the following for the existing:

'T = Temperature within ± 5 °C of any temperature between 20 °C and 32 °C'

(*Page* 11, *clause* **12**) **—** Substitute the following for the existing:

'**12 SEALING RINGS**

Sealing rings made of elastomeric material such as ethylene propylene diene monomer (EPDM) rubber, and of appropriate diameter ensuring secure fit shall be used for joining components and shall meet the following requirements:

a) Rings shall conform to the material requirements specified in IS 5382 and shall have shore hardness class 70 as per IS 5382. Also, the manufacturer has to specify the application type of sealing ring that is being offered (see IS 5382). The design of the profile of the sealing ring is left to the manufacturer as long as the pipe with sealing ring meets the requirements of the standard.

b) Rings shall be free from chemical agents such as plasticizers that could have a detrimental effect on the pipes or fittings, or on the quality of the water.

A test report or conformity certificate may be obtained from the manufacturer of the elastomeric sealing ring for the conformity to IS 5382. The frequency of this test report or conformity certificate shall be once in six months.'

(*Page* 11, *clause* **14.1**, *line* 3) — Substitute 'not more than 3 m' *for* 'not more than 1 m'.

(*Page* 12, *Annex* A) — Substitute the existing entry for IS 5382 by the following:

IS No.	*Title*
IS 5382 : 2018/ ISO 4633:2015	Rubber seals — Joint rings for water supply, drainage and sewerage pipelines — Specification for materials (second revision)

(*Page* 18, *clause* **G-1.9**, *line* 7) — Substitute 'Table 25 or Table 26' for 'Table 24 or Table 25'.

(CED 50)