भारतीय मानक ब्यूरो
(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)
BUREAU OF INDIAN STANDARDS
(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India

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व्यापक परिचालन मसौदा

हमारा संदर्भ : सीईडी 44/टी-12 **06 अगस्त 2025**

तकनीकी समिति: सिविल इंजीनियरिंग के कार्यों के मापन की पद्धतियाँ (जल संसाधन विकास को छोड़कर) विषय समिति, सीईडी - 44

प्राप्तकर्ता :

1. सिविल इंजीनियरी विभाग परिषद्, सीईडीसी के सभी सदस्य
2. सीईडी 44 के सभी सदसी
3. रूचि रखने वाले अन्य निकाय

य महोदय/महोदया,

निम्नलिखित भारतीय मानक का मसौदा संलग्न हैं:

प्रलेख संख्या	शीर्षक
सीईडी 44 (28489)WC	**भवन की माप की विधि एवं सिविल इंजीनियरिंग कार्य का भारतीय मानक मसौदा** **भाग 12 प्लास्टरिंग और पॉइंटिंग** [IS 1200 (भाग 12) का *चौथी पुनरीक्षण*] ICS 17.020; 91.040.01; 93.010

कृपया इस मानक के मसौदे का अवलोकन करें और अपनी सम्मतियॉ यह बताते हुए भेजे कि यदि यह मानक के रूप में प्रकाशित हो तो इस पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयाँ आ सकती हैं ।

सम्मतियॉ भेजने की अंतिम तिथि: **05/09/2025**

सम्मति यदि कोई हो तो कृपया अधोहस्ताक्षरी को उपरिलिखित पते पर संलग्न फोर्मेट में भेजें या **divya.s@bis.gov.in** पर ईमेल कर दें ।

यदि कोई सम्मति प्राप्त नही होती है अथवा सम्मति में केवल भाषा सम्बन्धी त्रुटि हुई तो उपरोक्त प्रलेख को यथावत अंतिम रूप दिया जाएगा। यदि सम्मित तकनीकी प्रकृति की हुई 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/-
(दिव्या एस.)
सदस्य सचिव सीईडी 44
वैज्ञानिक 'डी'(सिविल इंजीनियरिंग)
ई-मेल: divya.s@bis.gov.in

संलग्न: उपरलिखित

भारतीय मानक ब्यूरो
(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)
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WIDE CIRCULATION DRAFT

Our Reference: CED 44/T-12 **06 August 2025**

Technical Committee: Method of Measurement of Works of Civil Engineering (Excluding Water Resources Development) Sectional Committee, CED 44,

Addressed To:

a. All Members of Civil Engineering Division Council, CEDC
b. All Members of CED 44
c. All others interested

Dear Sir/Madam,

Please find enclosed the following document:

Doc No.	*Title*
CED 44 (28489) WC	**Draft Indian Standard on Method of Measurement of Building and Civil Engineering Works Part 12 Plastering and Pointing** [(*Fourth Revision*) of IS 1200 (Part 12)] ICS 17.020; 91.040.01; 93.010

Kindly examine the draft standard 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: **05 September 2025**

Comments if any, may please be made in the enclosed format and mailed to the undersigned at the above address or preferably through e-mail to **divya.s@bis.gov.in**.

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 of comments of 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,

Sd/-

(**Divya S.**)

Member Secretary CED 44

Scientist 'D' (Civil Engineering)

E-mail: **divya.s@bis.gov.in**

Encl: As above

FORMAT FOR SENDING COMMENTS ON THE DOCUMENT

(Please use A-4 size sheet of paper only and type within fields indicated. Comments on each clause/sub-clause/table/fig etc. be started on a fresh box. Information in column 3 should include reasons for the comments and suggestions for modified working 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 divya.s@bis.gov.in

Doc. No.: CED 44(28489) WC **BIS Letter Ref**: CED 44/T-12

Title: Wide Circulation Draft of Method of Measurement of Building and Civil Engineering Works Part 12 Plastering and Pointing [(*Fourth Revision*) of IS 1200 (Part 12)]

Last date of comments: **05 September 2025**

Name of the Commentator/ Organization: _____

Sl No.	Clause/ Para/ Table/ Figure No. commented	Comments/ Modified Wordings	Justification of Proposed Change
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NOTE- Kindly insert more rows as necessary for each clause/table, etc

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

METHOD OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS PART 12 PLASTERING AND POINTING

(Fourth Revision of IS 1200 Part 12*)*

ICS 17.020; 91.040.01; 93.010

Method of Measurement of Works of Civil Engineering (Excluding Water Resources Development) Sectional Committee, CED 44 **September 2025**	Last date of comments **06**

FORWARD

(*Formal clause will be added later*)

Measurement occupies a very important place in planning and execution of any civil engineering work from the time of first estimates to final completion and settlement of payments of the project. The methods followed for measurement are not uniform and considerable differences exist between practices followed by one construction agency and another and also between various Central and State Government departments. While it is recognized that each system of measurement has to be specifically related to the administrative and financial organizations within the department responsible for work, a unification of the various systems at technical level has been accepted as very desirable, specially as it permits a wider circle of operation for civil engineering contractors and eliminates ambiguities and misunderstandings arising out of inadequate understanding of various systems followed.

Among the various civil engineering items, measurement of building had been first to be taken up for standardization and this standard, having provisions relating to all building works, was first published is 1958 and revised in 1964.

In the course of usage of this standard (IS 1200: 1964) by various construction agencies in the country, several clarifications and suggestion for modifications were received and as a result of study, the Sections, Committee decided that its scope, besides being applicable to buildings shall be expanded so as to cover civil engineering works like industrial and river valley project works.

Since various trades are not related to one another, the Committee decided that each type of trade as given in IS 1200: 1964 be issued separately as a different part which will be helpful to specific users in various traded. This part covering method of measurement of plastering and pointing applicable to building as well as civil engineering works was, therefore, issued as a second revision in 1971 and third revision in 1976.

In the course of use of this standard in the past five years based on the suggestions received, certain amendments were issued to this standard. This third revision also incorporates all those amendments.

Significant modifications in this standard:

a) The curing of the surface has also been included under preparatory work,
b) Information about digital measurement tools have been included, and
c) Suggestions regarding the measurement of surface area for complex surfaces have been included.

This standard contributes to the Sustainable Development Goal 9 ‘Build resilient infrastructure, promote sustainable industrialization and foster innovation’.

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 measurement, shall be rounded off in accordance with IS 2: 1960. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Draft Indian Standard

METHOD OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS PART 12 PLASTERING AND POINTING

(*Fourth Revision* of IS 1200 part 12)

1. SCOPE

This standard (Part 12) covers the method of measurement of plastering and pointing for buildings and other measurements of civil engineering works.

2 REFERENCES

The standards given 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 agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

IS no.	*Title*
IS 1200	Methods of measurement of building and civil engineering works:
Part 8: 1993	Part 8 Steelwork and Ironwork (*fourth revision*)
Part 21: 1973	Part 21 Wood - Work and Joinery (*Second Revision*)

3. GENERAL RULES

3.1 Bills of Quantities — Items of work shall fully describe materials and workmanship and accurately represent the work to be executed.

3.2 Booking of Dimensions — In booking of dimensions, the order shall be consistent and generally in the sequence of length, breadth or width and height or depth or thickness.

3.3 Clubbing of Items — Items may be clubbed together provided detailed drawings or specifications or both are prepared for such items and method of measurement is agreed to be on the basis stated in the standard.

3.4 Description of Items — Description of each item shall, unless otherwise stated, be held to include, wherever necessary; conveyance, delivery, handling, unloading, storing, necessary scaffolding, protective cover, cleaning stains from floors, walls, return of packings, etc, and other incidental changes.

3.5 Dimensions — All work shall be measured net as executed in the decimal system, as given below:

a) Dimensions shall be measured to the nearest 0.01 m, and
b) Areas shall be worked out to the nearest 0.01 m^2.

3.6 Preparatory Work — Preparatory work, such as raking out joints, scarifying, cleaning and curing, shall be included in the description of items unless otherwise specified.

4. PLASTERING

4.1 Plaster work shall be classified according to the material used and each classification shall be measured separately. The following particulars shall be given for each classification:

a) Mix of mortar;
b) Number of coats and thickness of each coat;
c) Nature of surface treatment,
d) Nature of base;
e) Curved work, conical work, spherical work and elliptical work stating the radius; and
f) Any special treatment of base.

4.1.1 Description shall include arises, internal rounded angles, external chamfers and/or rounded angles not exceeding 80 mm in girth.

NOTE —For work exceeding 80 mm girth, *see* **4.4**.

4.1.2 In case of fibrous plaster, particulars of methods of application and of treatment of joints shall also be given.

4.1.3 Work in repairs shall be so described stating thickness of dubbing, if any.

4.2 Plastering on roofs, ceilings and walls shall be measured separately.

4.3 Removing plaster by scraping or otherwise shall be measured separately in square metres.

4.4 Plastering in isolated widths or in widths not forming part of general plastering work (as in bands, cornices, sunk, panels, etc) and in chamfers, rounded angles exceeding 80 mm in girth shall be measured as below:

a) 300 mm or below in width/girth, in running metres; and
b) Width/girth above 300 mm in square metres.

4.5 Plastering at a height greater than 10m above ground/datum level shall be measured separately in stages of 5m height, except interior plastering in case of building which shall be measured separately for each storey.

4.6 All plastering shall be measured in square metres unless otherwise described.

4.7 Cutting to edges shall be measured separately in running metres or alternatively described and included in the item.

4.8 Deductions

4.8.1 For jambs, soffits, sills, etc; for openings not exceeding 0.5 m^2 each in area, for ends of joists, beams, posts, girders, steps, etc, not exceeding 0.5 m^2 each in area, and for openings exceeding 0.5 m^2 and not exceeding 3 m^2 in each area, deductions and additions shall be made in the following manner:

a) No deduction shall be made for ends of joists, beams, posts, etc, and openings not exceeding 0.5 m^2 each and no addition shall be made for reveals, jambs, soffits, sills, etc, of these openings nor for finish to plaster around ends of joists, beams, posts, etc.

b) Deductions for openings exceeding 0.5 m^2 but not exceeding 3 m^2 each shall be made as follows and no addition shall be made for reveals, jambs, soffits, sills, etc, of these openings:

1) When both faces of wall are plastered with same plaster, deduction shall be made for one face only.

2) When two faces of wall are plastered with different types of plaster or if one face is plastered and the other pointed, deduction shall be made from the plaster or pointing on the side on which width of reveals is less than that on the other side, but no deduction shall be made on the other side. Where widths of reveals on both faces of wall are equal, deduction of 50 percent of area of opening on each face shall be made from areas of plaster and/or pointing as the case may be.

3) When only one face is plastered and the other face is not, full deduction shall be made from plaster if width of reveal on plastered side is less than that on unplastered side but if widths of reveal on both sides are equal or width of reveal on plastered side is more, no deduction shall be made.

4) When width of door frame is equal to thickness of wall or is projecting beyond thickness of wall, full deduction for opening shall be made from each plastered face of the wall.

4.8.2 In case of openings of area above 3 m^2 each, deduction shall be made for opening on each face, but jambs, soffits and sills shall be measured.

NOTE — In calculating areas of openings, the extra width of rebated reveals, if any, shall be excluded.

4.9 Ceilings shall be measured between walls or partitions and dimensions before plastering. Width covered by cornices or coves, if any, shall be deducted.

4.10 Soffits of stairs shall be measured as plastering on ceilings. Flewing soffits shall be measured separately.

4.11 Ribs and mouldings on ceilings shall be measured as for cornices (*see* **4.4**), deduction being made from plastering if width/girth exceeds 150 mm.

4.12 Measurement of wall plastering shall be taken between walls or partitions (dimensions before plastering being taken) for length and from top of floor or skirting to ceiling for height. Depth of cornices or coves, if any, shall be deducted.

4.12.1 Sides of pilasters, projections, etc, shall be added to plaster on walls.

4.12.2 Mouldings, architraves, ceiling ribs, cornices and the like on pilasters and around openings, etc, shall be measured separately as in **4.4**.

4.13 Length shall be measured in running metres at the centre of girth. Girth shall be measured along curve of moulding.

4.14 Moulded cornices and coves shall be measured in square metres, the area being arrived at by multiplying length by girth.

4.15 Forming letters or figures in plaster shall be enumerated stating the height.

4.16 Plastering on lathing shall be measured separately stating the number of coats and thickness of each coat.

4.16.1 Lathing shall be fully described and measured net; wood and steel lathing shall be measured separately [*see* IS 1200 (Part 21) and IS 1200 (Part 8)] respectively.

4.16.2 Laps, gauge and mesh of steel lathing shall be stated, no allowance being made for laps or cutting.

4.16.3 Size of laths, their distance apart and the kind of timber shall be stated in the case of wood lathing.

4.16.4 Connector lathing shall be measured separately.

4.17 Plastering on honeycomb work shall be described and measured in square metres on the basis of overall superficial area without deducting openings.

4.18 Informative guidance regarding digital measurement tools and the measurement of complex surfaces are provided in **Annex A**.

5 POINTING

5.1 Proportions of materials shall be described. Various types of pointing shall be measured separately. Pointing on different types of walls, floors, roofs, etc, shall be measured separately. Type and material of surface to be pointed shall be described.

5.2 Pointing in single detached joints as for flashings shall be measured in running metres.

5.3 Pointing brick and tile work with mortars of matching shades shall be measured separately.

5.4 Pointing shall be measured in square metres.

5.5 Removing pointing by raking or otherwise shall be measured in square metres.

5.6 Deductions–The provisions as in **3.8** shall be applicable.

5.7 Raking-out joints shall be measured in square metres or alternatively included in description of item.

5.7.1 Raking-out single detached joint shall be measured separately in running metres.

5.8 Pointing on honey-comb work shall be described and measured in square metres on the basis of overall superficial area without deducting openings.

Annex A

Informative annex on **digital measurement tools and the measurement of complex surfaces**

(*Clause* 4.18)

A-1 Digital Measurement Tools:

A-1.1 Measurement Tools — Digital tools such as laser distance meters, digital calipers, or 3D scanners may be used to get precise measurements of the plaster surface.

A-1.2 Software Compatibility — It may be ensured that the software's like CAD software, the BIM tools like Revit, or specialized plaster measurement software may be compatible with the digital tools chosen, so as to ensure accurate data transfer.

A-2 Digital Surface area calculation of Complex Surfaces

A-2.1 BIM Software — For projects involving intricate plasterwork on irregular surfaces, Building Information Modeling (BIM) software (such as Revit or ArchiCAD) may be used to calculate the plaster area automatically if we input the correct measurements or 3D models.

A-2.2 CAD Software — CAD programs may be used to draw the surfaces directly or to import the scanned data to measure area and volume. These programs often provide tools for measuring areas on complex surfaces, such as calculating the surface area of a non-flat or curved surface.

A-2.3 Surface Analysis Tools — Some software packages have tools specifically designed for surface analysis, which can help identify how much plaster is needed and where it’s most effective based on the surface’s curvature and texture.

A-2.4 Ultrasonic Thickness Gauge — This tool uses sound waves to measure the thickness of the plaster layer without damaging the surface. It's especially useful for measuring plaster thickness on irregular surfaces or surfaces where access is difficult (like, ceilings or walls with intricate designs).

A-2.5 Digital Thickness Measurement — For complex surfaces with variable plaster thickness, a digital ultrasonic gauge may be used to map the thickness at various points. This can help understand how much material is needed, as well as identify areas with uneven plaster application.

A-3 Measuring plastering for unique architectural elements, such as curves or decorative mouldings, may require a more detailed approach than for standard flat surfaces. These elements often involve complex shapes, angles, and intricate detailing, which makes accurate measurement essential for ensuring material estimates and successful plaster application.

A-3.1 Curved or rounded surfaces, such as arches or rounded walls, need to be measured in ways that account for the curve.

A-3.2 Decorative moldings (cornices, chair rails, or baseboards) involve both curved and linear measurements, often with intricate profiles that require detailed attention.

A-4 In modern construction, the criteria for deductions related to openings, reveals, and architectural features have evolved to reflect both the technical advancements in building design and the need for more accurate cost estimation and material efficiency. Deductions are made for areas that do not require plastering due to these features, and it's essential to adopt updated guidelines for these adjustments. A revised approach may be used in alignment with the current construction practices:

A-4.1 Advanced Window/Facade Systems — With the advent of curtain walls, large glazed facades, and prefabricated window units, it’s crucial to account for non-plastered zones more precisely. Some systems integrate the plaster with the building, in which case only the area directly around the window or frame might require deduction.

A-4.2 Modular Openings — In modular construction, openings may be pre-planned and may be framed out with pre-formed panels. Deductions should consider the modular nature of the design and the materials around the openings.

A-4.3 Pre-Cast Concrete or Modular Frames — For projects that use prefabricated frames, whether concrete or metal, reveals may already be integrated with finishes. In such cases, only the internal areas may need to be plastered, while the reveals themselves may be treated as non-plastered areas.

A-4.4 Thermal Breaks and Insulated Frames — In energy-efficient designs, the area around windows and doors may involve additional layers, such as thermal breaks or insulation. These areas often have a specific finish and should be accounted for in the deduction process to avoid overestimating plaster needs.