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-22 **06 जनवरी 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 (26854)WC	**भवन की माप की विधि एवं सिविल इंजीनियरिंग कार्य भाग 22 सामग्री** [IS 1200 (भाग 22) का *पहला 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 ।

सम्मतियाँ भेजने की अंतिम तिथि: 06/02/2025

टिप्पणियाँ, यदि कोई हों, बीआईएस ई-गवर्नेंस पोर्टल https://www.services.bis.gov.in/php/BIS_2.0/dgdashboard/draft/darftdetail/63/3/CED के माध्यम से ऑनलाइन भेजी जा सकती हैं।

वैकल्पिक रूप से, टिप्पणियाँ संलग्न प्रारूप में भी दर्ज की जा सकती हैं और ced44@bis.gov.in या divya.s@bis.gov.in पर ईमेल की जा सकती हैं।

आपको अपनी टिप्पणियाँ प्रस्तुत करने के लिए लॉगिन करना पड़ सकता है, कृपया लॉगिन बनाएं।

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-22 **06 January 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 (26854) WC	**Method of Measurement of Building and Civil Engineering Works** **Part 22 Materials** [(*First Revision*) of IS 1200 (Part 22)] 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: 06 February 2025

Comments if any, may be sent online through the BIS e-governance portal at https://www.services.bis.gov.in/php/BIS_2.0/dgdashboard/draft/darftdetail/63/3/CED .

Alternatively, comments may also be recorded in the enclosed format and emailed at ced44@bis.gov.in or at divya.s@bis.gov.in.

You may be required to login to submit your comments, kindly create a login.

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(26854) WC **BIS Letter Ref**: CED 44/T-22

Title: Wide Circulation Draft of Method of Measurement of Building and Civil Engineering Works Part 22 Materials [(*First Revision*) of IS 1200 (Part 22)]

Last date of comments: **06 February 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

Draft Indian Standard

METHOD OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS PART 22 MATERIALS

[*First Revision* of IS 1200 (Part 22)]

ICS 17.020; 91.040.01; 93.010

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

FOREWORD

(*formal clauses will be added later*)

Measurement occupies a very important place in the planning and execution of any civil engineering work, from the time of first estimates to final completion and settlement of payments. Methods being followed for measurement are not uniform, and considerable differences exist between the practices followed by different construction agencies and also between various Central and State Government Departments. While it is recognized that each system of measurement has to be specifically related to administrative and financial organization with departments responsible for the work, a unification of the various systems at the 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.

Since various trades are not related to one another, the Sectional Committee decided that each type of trade as given in IS 1200:1964 ‘Method of measurement of building works (*first revision*)’ be issued separately as different parts which will be helpful to specific users in various trades.

The practice for the method of measurement of supply of materials like sand, boulders, aggregates, etc varies considerably from one place to another with the result that a lot of practical difficulties arise in supply of such items. It has, therefore, been felt that methods of measurement of supply of such materials, as are generally taken from time to time for buildings and civil engineering works in substantial quantities, should be formulated. This part covers measurements of such materials. This standard was first published in 1982.

This revision of the standard has been brought out to incorporate the changes found necessary in light of usage of this standard and suggestions made by various implementing bodies. The significant modification in this revision is that the measurement of new building materials like manufactured aggregates, wood composite plastic, dry and oil based distemper, sandwich panels, etc have been incorporated.

For standards on method of measurement of river valley projects, the Indian Standards formulated by the Measurement and Cost Analysis of Works for River Valley Projects Sectional Committee, WRD 23 under the Water Resources Division Council of BIS may be referred.

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

In the course of usage of this standard by various construction agencies in the country, several clarifications and suggestions for modifications were received and as a result of study, the technical committee responsible for this standard decided that its scope beside! being applicable to buildings should be expanded to cover method of measurement for civil engineering works like industrial and river valley projects.

Wherever necessary, more information than is demanded by adherence to this standard may be given, provided the principles of measurements laid down in this standard are observed and it is in the interest of accuracy and practical estimating to do so.

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 : 2022 ‘Rules for rounding off numerical values (second revision)’. 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

METHODS OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS PART 22 MATERIALS

[*First Revision* IS 1200 (PART 22)]

1 SCOPE

This standard (Part 22) covers the method of measurement of materials normally used in buildings and civil engineering works.

2 GENERAL

2.1 Bills of Quantities — Bills of quantities shall fully describe materials.

2.2 Description of Item — Description of each item shall, unless otherwise stated, include, wherever necessary, conveyance and delivery, handling, unloading, storing etc.

2.3 Limits of Measurement — Dimensions shall be measured net in decimal system to the nearest 0.01 m, area to nearest 0.01 m^2, volume to nearest 0.01 m^3, weight to nearest 1 kg, unless otherwise stated (*see* also relevant Indian Standard).

3 METHOD OF MEASUREMENT OF MATERIALS

3.1 Various types of materials shall be measured as mentioned in Table 1.

TABLE 1 MEASUREMENT OF MATERIALS
(*Clause* **3.1**)

Sl. No.	NAME OF MATERIAL	HOW MEASURED
(1)	(2)	(3)
a)	*Admixtures*	
	In liquid form	In litres, stating type and class
	Powder	In kg, stating type and class
b)	*Aggregates*	
	Brick/stone/manufactured aggregates of 40 mm nominal size and above	In m^3 after making a deduction of 7.5 percent (for voids) from stack measurements and as per type
	Brick/stone/manufactured aggregates of less than 40 mm size, cinder, sand, *moorum*, fly ash, pozzolana, stone dust, etc	In m^3 of gross stack measurements according to nominal size and type
c)	*Aluminum Flats*	In kg, stating size
d)	*Aluminum Strip and Edging*	In running metre stating size
e)	*Asbestos Cement Products*	

	Barge boards	Enumerated, stating size
	Gutters	Enumerated, stating size, type and length
	Ridges	In pairs, according to size and type
	Roof lights, north light curves	Enumerated, stating size and type
	Sheets	Enumerated stating type, size and length
	Ventilators, eaves fillers, apron pieces, louvers, cowls, ridge finials, septic tanks	Enumerated and described
f)	*Blocks (Building, Clay, Cement, Stone, Concrete, etc)*	Enumerated stating size, type and grade, if any.
g)	*Bitumen Products*	
	Bitumen felt	In metre, stating type, grade and width
	Bitumen hot sealing compound	By weight, in kg, staring grade and type
	Bitumen road tar	In tonnes, stating type
	Joint filler (sealing compound)	In kg
h)	*Boards*	
	Plywood, Wood composite plastic, etc	In m^2, stating type and thickness
j)	*Bricks/Brick Tiles*	Enumerated, stating class and size
k)	*Cement/Lime Pozzolana Mixture*	In kg, stating type and grade, if any..
m)	*Doors/ Windows/ Ventilator Frames*	In linear metres and described (outside dimensions measured)
n)	*Doors/ Windows/ Ventilators (Excluding Fittings and Finishes)*	In m^2 and described
p)	*Distemper*	
	Dry distemper	In kg
	Oil based or acrylic distemper	In litres
q)	*Fibre Glass Felt*	In m^2 stating thickness and grade
r)	*Filler Fibrous/Non Fibrous*	In m^2 and described
s)	*Fittings for Doors and Windows*	Enumerated
t)	*Floor Tiles*	Enumerated, stating type and size
u)	*Galvanized Steel Barbed Wire*	In kg, stating type and size
v)	*Galvanized Steel Sheets (Corrugated/Plain)*	In quintals or enumerated, stating type and size
w)	*Glass Sheets (Plain/Pin Head/Frosted/ Wired/ Splinter proof)*	In m^2, stating type, thickness and size
y)	*Glass Strips*	In running metres, stating thickness and width
z)	*Jali Cement-Concrete/Clay*	In m^2, stating thickness and type
aa)	*Lead for Caulking*	In kg
ab)	*Lime*	In kg, stating class
ac)	*Marble Chips*	In quintal, stating size and described
ad)	*Marble Dust*	In kg
ae)	*Marble Pieces*	In kg, stating colour
af)	*Marble Slab*	In m^2, stating thickness and type

ag)	*Metal Beading*	In running metres, stating type and size
ah)	*Paints, Emulsions and Thinners,*	In litres, stating type and class
aj)	*Paint (Stiff), Pigments &*	In kg, stating type and class
ak)	*Sandwich Panels for partitioning or roofing*	In m^2 stating type and described
am)	*Pipes and Accessories*	
	Pipe fittings	Enumerated and described
	Pipes (except mild steel)	In running metres and described
an)	*Precast Units for Flooring*	Enumerated and described
	Rope Manila	In kg, stating diameter and described
ap)	*Rubber Rings for Pipes*	Enumerated and described
aq)	*Steel*	
	Mild steel sheets	In tonnes, stating size and thickness
	Mild steel expanded metal	In m^2 and described
	Wire fabric/chain fabric	In m^2 and described
	Hoop iron/bolts/rivets/bars/structural sections/rails/mild steel pipes	In kg or tonnes and described
ar)	*Stone*	
	Boundary stone/kilometre stone	Enumerated, stating size and type
	Kerb stone	Enumerated, stating size
	Floor stone slabs	In m^2 and described
	Soling stone, rubble	In m^3, after making a deduction of 15 percent from gross stack measurements, stating nominal size and type
	Boulders	In m^3, after making a deduction of 15 percent from gross stack measurements, stating nominal size and type
as)	*Sanitary Fittings*	
	Cisterns / clamps / cocks / ferrules / gratings / hydrants/ traps / bath tubs / urinals / valves / wash basins / WC pans / showers/ towel rails / bidets	Enumerated and described
at)	*Tilts (Other than sanitary)*	In m^2, stating size and type
au)	*Timber*	
	Blocks/baulks	Enumerated, stating type and size
	Ballies	Enumerated, specifying diameter and described (diameter shall be measured at 1.5 m from the thick end)
	Bamboos	Enumerated and described
	Scantlings/planks/battens	In m^3, stating size and type
av)	*Wall Tiles/False Ceiling Tiles/Roofing Tiles*	Enumerated, stating type and size
aw)	*Waterproofing*	
	Compound	In kg
	Paste/Emulsion/Liquid	In litres
	sheets	In m^2 stating thickness

ay)	*Wire*	In kg and diameter stated
az)	*Wire Rope*	In running metre and described