



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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प्रारंभिक मसौदा

हमारा संदर्भ : सीईडी 44/टी-22

29 अक्टूबर 2024

तकनीकी समिति: सिविल इंजीनियरिंग के कार्यों के मापन की पद्धतियाँ

(जल संसाधन विकास को छोड़कर) विषय समिति, सीईडी - 44

प्राप्तकर्ता :

- क) सिविल इंजीनियरी विभाग परिषद्, सीईडीसी के सभी सदस्य
- ख) सीईडी 44 के सभी सदस्य
- ग) रूचि रखने वाले अन्य निकाय

प्रिय महोदय/महोदया,

निम्नलिखित भारतीय मानक का मसौदा संलग्न है:

प्रलेख संख्या	शीर्षक
सीईडी 44 (26854) P	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 मसौदे की जाँच करें और इसमें और सुधार के संबंध में अपनी सम्मतियाँ साझा करें।

सम्मतियाँ भेजने की अंतिम तिथि: 19/11/2024

टिप्पणियाँ, यदि कोई हों, बीआईएस ई-गवर्नेंस पोर्टल https://www.services.bis.gov.in/php/BIS_2.0/WCDraft/comment_pdraft.php 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 सबमिट करने के लिए लॉग इन करने की आवश्यकता हो सकती है, कृपया लॉग इन करने के लिए अपने मोबाइल नंबर (बीआईएस को प्रदान किया गया) और ओटीपी प्रावधान का उपयोग करें।

यदि कोई सम्मति प्राप्त नहीं होती है अथवा सम्मति में केवल भाषा संबंधी त्रुटि हुई तो हम मान लेंगे कि प्रारंभिक मसौदे के लिए आपका अनुमोदन प्राप्त हुआ है। यदि सम्मति तकनीकी प्रकृति की हुई तो उसे विषय समिति के अध्यक्ष के परामर्श से आवश्यक कार्रवाई के लिए विषय समिति के सामने रखा जाएगा।

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**

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Website: www.bis.org.in, www.bis.gov.in**PRELIMINARY DRAFT**

Our Reference: CED 44/T -22

29 October 2024

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

- All Members of Civil Engineering Division Council, CEDC
- All Members of CED 44
- All others interested

Dear Sir/Madam,

Please find enclosed the following document:

Doc No.	Title
CED 44 (26854)P	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 attached draft and forward your comments for further improvement.

Last Date for comments: 19 November 2024Comments if any, may be sent online through the BIS e-governance portal at https://www.services.bis.gov.in/php/BIS_2.0/WCDraft/comment_pdraft.php.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 use your mobile number (provided to BIS) and the otp provision to login.***

In case no comments are received, or comments received are of editorial nature, kindly permit us to presume your approval for the above document. However, in case comments of technical nature are received, then in consultation with the Chairperson, CED 44 the comments may be put up to the Sectional Committee for necessary action.

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 A4 size sheet of paper only and type within fields indicated. Comments on each clause/sub-clause/table/figure, etc, be stated on a fresh row. Information/comments should include reasons for comments, technical references and suggestions for modified wordings of the clause. **Comments through https://www.services.bis.gov.in/php/BIS_2.0/WCDraft/comment_pdraft.php shall be appreciated.]**

Doc. No.: CED 44(26854)P**BIS Letter Ref:** CED 44/T-22**Title:** Preliminary 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: **19 Novembers 2024****Name of the Commentator/ Organization:** _____

SI No.	Clause/ Para/ Table/ Figure No. commented	Comments/ Modified Wordings	Justification of Proposed Change
1.			
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NOTE- Kindly insert more rows as necessary for each clause/table, etc

BUREAU OF INDIAN STANDARDS

Preliminary Draft Indian Standard

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

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

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.

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 revision 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 modifications in this revision are:

- a) Admixtures have also been added to the list of materials.

Further modifications will be added after the circulation of P draft.

This standard contributes to the Sustainable Development Goal 9 'Build resilient infrastructure, promote inclusive and 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 : 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.

*Preliminary Draft Indian Standard***METHOD OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS
PART 22 MATERIALS**

[First Revision of IS 1200 (Part 22)]

1 SCOPE

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

2 GENERAL

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

2.2 Limits of Measurement — Dimensions shall be measured net in decimal system to the nearest 0.01 m, area to nearest 0.01 m², volume to nearest 0.01 m³, weight to nearest 1 kg, unless otherwise stated (see also relevant Indian Standard).

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

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)

SI No.	Name Of Material	How Measured
(1)	(2)	(3)
a)	<i>Aggregates</i>	
	i) Brick/stone of 40 mm nominal size and above	In m ³ after making a deduction of 7.5 percent from stack measurements and as per type
	ii) Brick/stone aggregates of less than 40 mm size cinder, sand, <i>moorum</i> , fly ash, pozzolana, stone, stone dust	In m ³ of gross stack measurements according to nominal size and type
b)	<i>Aluminium Flats</i>	In kg, stating size

c)	<i>Aluminium Strip and Edging</i>	In running metre stating size
d)	<i>Asbestns Cement Products</i>	
	i) Barge boards	Enumerated, stating size
	ii) Ridge	In pairs, according to size and type
	iii) Gutters	Enumerated, stating size, type and length
	iv) Roof lights, north light curves	Enumerated, stating size and type
	v) Sheets	Enumerated stating type, size and length
	vi) Ventilators, eaves fillers, apron pieces, louvers, cowls, ridge finials, septic tanks	Enumerated and described
e)	<i>Bitumen Products</i>	
	i) Bitumen felt	In metre, stating type, grade and width
	ii) Bitumen hot sealing compound	By weight, in kg, stating grade and type
	iii) Bitumen road tar	In tonnes, stating type
	iv) Joint filler (sealing compound)	In kg
f)	<i>Boards</i>	
	i) Plywood, etc	In m ² , stating type and thickness
g)	<i>Bricks/Brick Tiles</i>	Enumerated, stating class and size
h)	<i>Blocks (Building, Clay, Cement. Stone, etc)</i>	Enumerated stating size, type and grade if any
j)	<i>Cement/Lime Pozzolana Mixture</i>	In kg, stating type.
k)	<i>Distemper</i>	In m ²
m)	<i>Doors/ Windows/ Ventilator Frames</i>	In linear metres and described (outside dimensions measured)
n)	<i>Doors/ Windows/ Ventilators (Excluding Fittings and Finishes)</i>	In m ² and described
p)	<i>Fibre Glass Felt</i>	In m ² stating thickness and grade
q)	<i>Filler Fibrous/Non Fibrous</i>	In m ² and described
r)	<i>Fittings for Doors and Windows</i>	Enumerated
s)	<i>Galvanized Steel Barbed Wire</i>	In kg, stating type and size
t)	<i>Galvanized Steel Sheets (Corrugated/Plain)</i>	In quintals or enumerated, stating type and size
u)	<i>Glass Sheets (Plain/Pin Head/Frosted/Wired/ Splinter proof)</i>	In m ² , stating type, thickness and size
v)	<i>Glass Strips</i>	In running metres, stating thickness and width
w)	<i>Jali Cement-Concrete/Clay</i>	In m ² , stating thickness and type
y)	<i>Lead for Caulking</i>	In kg
z)	<i>Lime</i>	In kg, stating class
aa)	<i>Marble Chips</i>	In quintal, stating size and described

ab)	<i>Marble Dust</i>	In kg
ac)	<i>Marble Pieces</i>	In kg, stating colour
ad)	<i>Marble Slab</i>	In m ² , stating thickness and type
ae)	<i>Metal Beading</i>	In running metres, stating type and size
af)	<i>Paints, Emulsions and Thinners, Admixtures</i>	In litres, stating type and class
ag)	<i>Paint (Stiff), Pigments & Admixtures (Powders)</i>	In kg, stating type and class
ah)	<i>Pipes and Accessories</i>	
	i) Pipe fittings	Enumerated and described
	ii) Pipes (except mild steel)	In running metres and described
aj)	<i>Precast Units for Flooring</i>	Enumerated and described
ak)	<i>Rope Manila</i>	In kg, diameter and described
am)	<i>Rubber Rings for Pipes</i>	Enumerated and described
an)	<i>Steel</i>	
	i) Mild steel sheets	In tonnes, stating size and thickness
	ii) Mild steel expanded metal	In m ² and described
	iii) Wire fabric/chain fabric	In m ² and described
	iv) Hoop iron/bolts/rivets/bars/ structural sections/rails/mild steel pipes	In kg or tonnes and described
ap)	<i>Stone</i>	
	i) Boundary stone/kilometre stone	Enumerated, stating size and type
	ii) Kerb stone	Enumerated, stating size
	iii) Floor stone slabs	In m ² and described
	iv) Soling stone, boulders, rubble	In m ² , after making a deduction of 15 percent from gross stack measurements, stating nominal size and type
aq)	<i>Sanitary Fittings</i>	
	i) Cisterns / clamps / cocks / ferrules / footrests / gratings / hydrants/ traps / bath tubs / urinals / valves / wash basins/ WC pans / showers/ towel rails / bidets	Enumerated and described
ar)	<i>Tiles</i>	Enumerated, stating type and size
as)	<i>Timber</i>	
	i) Blocks/baulks	Enumerated, stating type and size
	ii) Ballies	Enumerated, specifying diameter and described (diameter shall be measured at 1.5 m from the thick end)
	iii) Bamboos	Enumerated and described
	vi) Scantlings/planks/battens	In m ³ , stating size and type
at)	<i>Tilts (Other than sanitary)</i>	In m ² , stating size and type

au)	<i>Wall Tiles/False Ceiling Tilts/Roofing Tiles</i>	Enumerated, stating type and size
av)	<i>Water Proofing Compound</i>	In kg
aw)	<i>Water Proofing Paste/Emulsion/Liquid</i>	In litres
ay)	<i>Wire</i>	In kg and described
az)	<i>Wire Rope</i>	In running metre and described
