

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 1200-11 (1977): Method of measurement of building and civil engineering works: Part11 paving, floor finishes dado and skirting [CED 44: Methods of Measurement of Works of Civil Engineering]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



IS : 1200 ( Part XI)- 1977  
(Reaffirmed 2007)

*Indian Standard*

METHOD OF MEASUREMENT OF  
BUILDING AND CIVIL ENGINEERING WORKS

PART XI PAVING, FLOOR FINISHES, DADO AND SKIRTING

( Third Revision )

Second Reprint JANUARY 1989

UDC 69.003.12:693.7+69.025.3

© Copyright 1977

BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

*Indian Standard*

**METHOD OF MEASUREMENT OF  
BUILDING AND CIVIL ENGINEERING WORKS  
PART XI PAVING, FLOOR FINISHES, DADO AND SKIRTING  
( Third Revision )**

## Civil Works Measurements Sectional Committee, BDC 44

*Chairman*

SHRI S. R. NAIR

*Representing*

Engineer-in-Chief's Branch, Army Headquarters

*Members*

SHRI N. P. ACHARYYA

The Commissioner for the Port of Calcutta, Calcutta  
Engineers India Limited, New Delhi

SHRI K. D. ARCOT

SHRI T. V. SITARAM (*Alternate*)  
CHIEF ENGINEER ( R & B )Public Works Department, Government of Andhra  
Pradesh, HyderabadSUPERINTENDING ENGINEER  
( P & D ) (*Alternate*)SHRI V. B. DESAI  
DIRECTOR, IRIHindustan Construction Co Ltd, Bombay  
Irrigation Department, Government of Uttar  
Pradesh, Roorkee  
Central Water Commission, New Delhi

DIRECTOR ( RATES &amp; COSTS )

DEPUTY DIRECTOR ( RATES &  
COSTS ) (*Alternate*)

Institution of Surveyors, New Delhi

SHRI P. N. GADI

SHRI P. L. BEASIN (*Alternate*)SHRI G. V. HINGORANI  
SHRI G. K. C. IYENGAR  
SHRI M. L. JAINGammon India Ltd, Bombay  
Heavy Engineering Corporation Ltd, Ranchi  
The National Industrial Development Corporation  
Ltd, New Delhi

SHRI H. K. KHOSLA

Irrigation Department, Government of Haryana,  
Chandigarh

SHRI S. K. KOSEKAR

SHRI G. S. LIKHARI (*Alternate*)

National Buildings Organisation, New Delhi

SHRI S. K. LAHA

Institution of Engineers ( India ), Calcutta  
Concrete Association of India, Bombay

SHRI V. D. LONDHE

SHRI N. C. DUGGAL (*Alternate*)

SHRI K. K. MADHOK

Builders' Association of India, Bombay

SHRI DATTA S. MALIK

Indian Institute of Architects, Bombay

PROF M. K. GODBOLE (*Alternate*)

( Continued on page 2 )

© Copyright 1977

BUREAU OF INDIAN STANDARDS

This publication is protected under the *Indian Copyright Act* ( XIV of 1957 ) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

**IS : 1200 ( Part XI ) - 1977**

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
SHRI B. S. MATHUR	Ministry of Shipping & Transport ( Roads Wing )
SHRI A. D. NARAIN ( <i>Alternate</i> )	
SHRI R. S. MURTHY	Engineer-in-Chief's Branch, Ministry of Defence
SHRI V. G. PATWARDHAN ( <i>Alternate</i> )	
SHRI C. B. PATEL	M. N. Dastur & Co Private Ltd, Calcutta
SHRI B. C. PATEL ( <i>Alternate</i> )	
SHRI RADHEY SHIAM	Hindustan Steelworks Construction Ltd, Calcutta
SHRI K. G. SALVI	Hindustan Housing Factory Ltd, New Delhi
SHRI G. B. SINGH ( <i>Alternate</i> )	
SHRI P. V. SATHE	Public Works & Housing Department, Government of Maharashtra, Bombay
SENIOR CIVIL ENGINEER ( PLG & DESIGNS ), NORTHERN RAILWAY	Ministry of Railways
SHRI B. K. SHAH	Bombay Port Trust, Bombay
DR R. B. SINGH	Banaras Hindu University, Varanasi
SHRI S. SRINIVASAN	Hindustan Steel Ltd, Ranchi
SUPERINTENDING SURVEYOR OF WORKS ( AVI )	Central Public Works Department, New Delhi
SURVEYOR OF WORKS ( I ) ( <i>Alternate</i> )	
SUPERINTENDING SURVEYOR OF WORKS ( NDZ )	Central Public Works Department, New Delhi
SURVEYOR OF WORKS ( I )	
ATTACHED TO SSW ( I ) ( <i>Alternate</i> )	
SHRI J. C. VERMA	Bhakra Management Board, Nangal Township
SHRI I. P. PURI ( <i>Alternate</i> )	
SHRI D. AJITHA SIMHA, Director ( Civ Engg )	Director General, ISI ( <i>Ex-officio Member</i> )

*Secretary*

SHRI K. M. MATHUR  
Deputy Director ( Civ Engg ), ISI

**AMENDMENT NO. 1 DECEMBER 1989  
TO**

**IS : 1200 ( Part 11 ) - 1977 METHOD OF  
MEASUREMENT OF BUILDING AND  
CIVIL ENGINEERING WORKS**

**PART 11 PAVING, FLOOR FINISHES, DADO AND SKIRTING**

*( Third Revision )*

*( Page 5, clause 2.4, first sentence )* — Substitute the following for the existing sentence:

**'2.4 Dimension** — All work shall be measured as laid in the decimal system as under unless otherwise stated hereinafter. The length and breadth shall be measured before laying skirting, dado or wall plaster.'

**( EDC 44 )**

---

Printed at Printwell Printers, Delhi, India

## *Indian Standard*

# METHOD OF MEASUREMENT OF BUILDING AND CIVIL ENGINEERING WORKS PART XI PAVING, FLOOR FINISHES, DADO AND SKIRTING ( *Third Revision* )

### 0. FOREWORD

**0.1** This Indian Standard ( Part XI ) ( Third Revision ) was adopted by the Indian Standards Institution on 30 September 1977, after the draft finalized by the Civil Works Measurement Sectional Committee had been approved by the Civil Engineering Division Council.

**0.2** 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 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 the inadequate understanding of various systems followed.

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

**0.4** In the course of usage of this standard ( IS : 1200-1964\* ) by various construction agencies in the country, several clarifications and suggestions for modifications were received and, as a result of study, the Sectional Committee decided that its scope, besides being applicable to buildings, should be expanded so as to cover also method of measurement applicable to civil engineering works like industrial works.

---

\*Method of measurement of building works ( revised ).



## **IS: 1200 ( Part XI ) - 1977**

**0.5** 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 trades. This part covering method of measurement of paving and floor finishes applicable to building as well as civil engineering works was, therefore, issued as a second revision in 1971.

**0.6** In the course of use of this standard in the past 6 years, a number of suggestions were received and accordingly certain amendments were issued to this standard. This third revision incorporates all such amendments besides making other provision up-to-date.

**0.7** 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.

---

### **1. SCOPE**

**1.1** This standard ( Part XI ) covers the method of measurement of pavings, floor finishes, dado and skirting in buildings and civil engineering works.

NOTE — The method of measurement of airfield pavements is covered in IS: 1200 ( Part XVII )-1969‡.

### **2. GENERAL**

**2.1 Clubbing of Items** — Items may be clubbed together provided that the break-up of the clubbed items is agreed to be on the basis of the detailed description of the items.

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

**2.3 Description of Items** — The description of each item shall, unless otherwise stated, be held to include wherever necessary conveyance and delivery, handling, unloading, storing, fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings, and other incidental operations.

---

\*Method of measurement of building works (*revised*).

†Rules for rounding off numerical values (*revised*).

‡Method of measurement of building and civil engineering works: Part XVII Road work including airfield pavement (*revised*).

**2.4 Dimension** — All work shall be measured net, as laid, in the decimal system as under, unless otherwise stated hereinafter:

- a) Dimensions shall be measured to the nearest 0.01 m, and
- b) Areas shall be worked out to nearest 0.01 m<sup>2</sup>.

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

**2.6 Cuttings** — All cuttings shall unless otherwise stated be held to include the consequent waste.

**2.7 Mode of Measurement** — All work shall be measured in square metres unless otherwise stated. Deductions for ends of dissimilar materials or other articles embedded shall not be made for areas not exceeding 0.1 m<sup>2</sup>.

**2.7.1** Work in isolated width not matching with the general finish shall be measured as below:

- a) Width 30 cm and below in running metres ( the description to include for cutting to edges if any ), and
- b) Width above 30 cm in square metres.

**2.8** Expansion and dummy joints shall be described and measured separately in running metres stating depth and width of joints. The filler shall be described and included in the description of item.

**2.9** Work in repairs shall be so described and preparation of old surfaces to receive such work shall be included in the description.

**2.10** Work in isolated areas not exceeding 1 m<sup>2</sup> each shall be so described stating the nature thereof.

**2.11** Work to a pattern or in more than one colour shall be so described stating the nature thereof.

**2.12** Curved work, conical work and spherical work shall be described separately stating the radius.

**2.12.1** Labour in such works shall be so described and measured separately.

### **3. IN SITU FINISHES**

**3.1** *In situ* finishes shall be classified according to the kind of material ( for example, granolithic, terrazzo, mosaic, etc ) and measured separately. The following particulars shall be given for each classification:

- a) Composition and mix;
- b) Thickness, which shall be exclusive of keys, grooves and open joints;

**IS : 1200 ( Part XI ) - 1977**

- c) Number of coats;
- d) Nature of surface treatment ( for example, steel trowelled, wood floated, polished, sprinkled with carborundum powder, etc );
- e) Nature of base and any special treatment to the same; and
- f) Situations, for example, whether in flooring or in dado/skirting.

**3.2** Work executed to imitate stone slab, or stone blocks shall be so described stating the average size of the slabs or blocks, the surface finish ( for example, plain, rough, etc ).

**3.3** Work to floors laid in bays and work to floors laid in panels between dividing strips shall be so described stating the size of bay or area of panel or bay. The dividing strip shall be measured separately ( see 3.13 ).

**3.4** Work in floors laid in one operation with the base concrete shall be so described.

**3.5** No deduction shall be made for voids not exceeding 0'2 m<sup>3</sup>.

**3.6** Work in treads, risers and edges of landings shall be measured in square metres. Work in landings shall be included in the main item.

**3.7** Work to wall strings and open strings shall be measured in square metres. Ends, angles, ramps and wreathed corners shall be included with the item.

**3.8** Moulded nosings shall be measured in running metres; returned moulded ends and angles to mouldings shall be included in the description.

**3.9** Dados ( including raking dados ) shall be measured in square metres. Skirting ( including raking skirting ) shall be measured in running metres stating the height. Mitres, stops, returned ends and the like shall be included with the item.

**3.10** Work to kerbs shall be measured in running metres stating the girth on face. Raking kerbs and vertical kerbs shall each be so described. Arrises, rounded edges and coves shall be included in the description. Angles and intersections shall be enumerated separately.

**3.11** Forming channels shall be measured in running metres as extra over the finishings in which they occur stating the girth on face. Arrises shall be included in the description. Ends, angles, intersections and outlets shall each be enumerated separately.

**3.12** Lining to channels shall be measured in running metres stating the girth on face. Arrises and coves shall be included in the description. Ends, angles, intersections and outlets shall each be enumerated separately.

**3.13** Dividing strips shall be described stating size and thickness and measured separately in running metres. Description shall include for ends, angles and intersections and method of fixing, embedding, etc.

## 4. TILE, SLAB OR BLOCK FINISHES

### 4.1 Particulars of the following shall be given:

- a) Kind of tile, slab or block units ( for example, precast concrete, precast terrazzo, brick, natural stone, cast stone, slate, marble, woodblocks, cork, rubber, etc );

NOTE — In case of precast concrete work, the mix to be stated.

- b) Thickness and size of tile, slab or block units;
- c) Shape of units where other than rectangular;
- d) Nature of surface finish ( for example, glazed, rubbed, polished, type of dressing in case of stone, etc );
- e) Bedding or other method of fixing units;
- f) Grouting, pointing or other finish to joints;
- g) Nature of base ( for example, wood, screeded bed, concrete, brickwork, etc );
- h) Situations, for example, whether in flooring or in dado/skirting; and
- j) Layout of joints.

4.2 Temporary moulds for precast tile, slab or block units shall be deemed to be included with the item.

4.3 No deduction shall be made for voids not exceeding 0.2 m<sup>2</sup>.

4.4 Square cutting at joint and at boundaries shall be deemed to be included with the items except as provided in 4.5. Raking, cutting and curved cutting shall each be measured separately in running metres except where occurring within a pattern. In case of work laid to diagonal patterns, straight cutting at boundary ( measured around the perimetre of each area ) shall be measured in running metres.

4.5 Fair edges, rebated edges, rounded edges, chamfered edges, splayed edges, bevelled edges and the like shall be measured separately in running metres including ends, angles, mitres, intersections, etc.

4.6 Moulded edges, grooves, flutes and the like shall each be measured separately in running metres. Ends, angles and intersections shall each be enumerated separately.

4.7 Cutting and fitting around steel stanchions and the like ( grouped together ) shall be described and enumerated.

4.8 Cutting and fitting around pipes, tubes, bars, cables, conduits and the like shall be described and enumerated.

4.9 Cutting and fitting around profile of steps shall be enumerated.

## **IS : 1200 ( Part XI ) - 1977**

**4.10** Cutting and fitting around ducting brackets, newels, WC pedestals, vents, root-doors and the like (grouped together) shall be enumerated stating the size in stages of 25 cm girth.

**4.11** Dividing strips shall be described stating size and thickness and measured separately in running metres. Description shall include for ends, angles and intersections and method of fixing, embedding, etc.

**4.12** Dados (including raking dados) shall be measured in square metres. Skirting (including raking skirting) shall be measured in running metres stating the height. Mitres, stops, returned ends and the like shall be included with the item.

**4.13** Channels and lining to channels shall each be measured separately in running metres describing the section and average depth. Channels to falls shall be so described. Rounded edges shall be included in the description. Ends, angles, intersections and outlets shall each be enumerated separately.

**4.14** Kerbs shall be measured in running metres describing the section and shall include rounded edges coves, etc.

**4.15** Special tiles and special slabs to form coved internal angles of any radius, rounded external angles, architraves, mouldings, ceiling ribs, cornices and the like shall each be measured in running metres separately according to size and shape.

**4.16** Work to treads, risers and edges of landings shall be measured separately in square metres. Work in landings shall be included in the main item.

## **5. SHEET FINISHES**

**5.1** Particulars of the following shall be given:

- a) Kind of sheeting ( linoleum, cork, rubber, etc );
- b) Thickness and quality of sheeting;
- c) Method of fixing and joining; and
- d) Nature of base.

**5.2** Laps and seams shall be included in the description stating the lap and type of seam and shall not be measured separately.

**5.3** Sheet finishes to vertical inclined and horizontal surfaces shall be measured separately.

**5.4** No deduction shall be made for voids not exceeding 0.2 m<sup>2</sup>.

**5.5** Raking cutting and curved cutting shall each be measured separately in running metres except where occurring within a pattern ( *see 2.11* ). Forming rounded external angles and coved internal angles shall each be measured separately in running metres stating the girth.

**5.6** Cover strips over joints of finishes shall be described stating the size and measured in running metres. Description shall include for ends, angles and intersections.

**5.7** Cutting and fitting around steel stanchions and the like ( grouped together ) shall be described and enumerated.

**5.8** Cutting and fitting around pipes, tubes, bars, cables, conduits and the like shall be described and enumerated.

**5.9** Cutting and fitting around profile of steps shall be enumerated.

**5.10** Cutting and fitting around ducting brackets, newels, WC pedestals, vents, soot-doors and the like ( grouped together ) shall be enumerated stating the size in stages of 25 cm girth.

## **6. BEDDING AND BACKINGS**

**6.1** Particulars of the following shall be given:

- a) Composition and mix;
- b) Thickness which shall be exclusive of keys, grooves, open joints; and
- c) Nature of base and any treatment of the same.

**6.2** Screeded beds for all floor finishes shall be described and measured.

**6.3** No deduction shall be made for voids not exceeding 0.2 m<sup>2</sup>.

**6.4** Bedding and backing laid in bays or laid in panels between dividing strips shall be so described stating the size of bay or area of panel or bay.

**6.5** Bedding and backing in treads, risers and edges of landings shall each be measured separately in square metres. Work in landings shall be included in the main item.

**6.6** Bedding and backing in skirtings and dados shall be measured separately.

**6.7** Forming channels in beds shall be measured in running metres as extra over the beds in which they occur stating the girth on face. Arrises, rounded edges, coves, ends, angles, intersections, outlets and the like shall be included with the items.

## **INDIAN STANDARDS**

**ON**

### **BUILDING AND CIVIL ENGINEERING WORKS**

**IS :**

**1200 Method of measurement of building and civil engineering works:**

- 1200 ( Part I )-1974 Part I Earthwork ( *third revision* )
- 1200 ( Part II )-1974 Part II Concrete work ( *third revision* )
- 1200 ( Part III )-1976 Part III Brick work ( *third revision* )
- 1200 ( Part IV )-1976 Part IV Stone masonry ( *third revision* )
- 1200 ( Part V )-1972 Part V Formwork ( *second revision* )
- 1200 ( Part VI )-1974 Part VI Refractory work ( *second revision* )
- 1200 ( Part VII )-1972 Part VII Hardware ( *second revision* )
- 1200 ( Part VIII )-1974 Part VIII Steelwork and ironwork ( *third revision* )
- 1200 ( Part IX )-1973 Part IX Roof covering ( including cladding ) ( *second revision* )
- 1200 ( Part X )-1973 Part X Ceiling and linings ( *second revision* )
- 1200 ( Part XI )-1977 Part XI Paving, floor finishes, dado and skirting ( *third revision* )
- 1200 ( Part XII )-1976 Part XII Plastering and pointing ( *third revision* )
- 1200 ( Part XIII )-1976 Part XIII Whitewashing, colour washing, distempering and other finishes ( *third revision* )
- 1200 ( Part XIV )-1970 Part XIV Glazing ( *second revision* )
- 1200 ( Part XV )-1971 Part XV Painting, polishing, varnishing, etc ( *third revision* )
- 1200 ( Part XVI )-1969 Part XVI Laying of water and sewer lines including appurtenant items ( *second revision* )
- 1200 ( Part XVII )-1969 Part XVII Roadwork including airfield pavements ( *second revision* )
- 1200 ( Part XVIII )-1974 Part XVIII Demolition and dismantling ( *third revision* )
- 1200 ( Part XIX )-1970 Part XIX Water supply, plumbing, drains and sanitary fittings ( *second revision* )
- 1200 ( Part XX )-1969 Part XX Laying of gas and oil pipe lines ( *second revision* )
- 1200 ( Part XXI )-1973 Part XXI Woodwork and joinery
- 1200 ( Part XXIII )-1977 Part XXIII Piling ( *third revision* )
- 1200 ( Part XXIV )-1971 Part XXIV Well foundations ( *second revision* )
- 1200 ( Part XXV )-1971 Part XXV Tunneling ( *second revision* )
- 3861-1975 Method of measurement of plinth, carpet and rentable areas of buildings ( *first revision* )

# BUREAU OF INDIAN STANDARDS

## Headquarters .

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 3 31 01 31, 3 31 13 75

Telegrams : Manaksanstha  
( Common to all Offices )

## Regional Offices :

## Telephone

\*Western ; Manakalaya, E9 MIDC, Marol, Andheri ( East ) 6 32 92 95  
BOMBAY 400093

†Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, 36 24 99  
Maniktola, CALCUTTA 700054

Northern : SCO 445-446, Sector 35-C { 2 18 43  
CHANDIGARH 160036 { 3 16 41

Southern : C. I. T. Campus, MADRAS 600113 { 41 24 42  
{ 41 25 19  
{ 41 29 16

## Branch Offices :

Pushpak, Nurmohamed Shaikh Marg, Khanpur, { 2 63 48  
AHMADABAD 380001 { 2 63 49

'F' Block, Unity Bldg, Narasimharaja Square, 22 48 05  
BANGALORE 560002

Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, 6 27 16  
BHOPAL 462003

Plot No. 82/83, Lewis Road, BHUBANESHWAR 5 36 27

53/5 Ward No. 29, R. G. Barua Road, —  
5th Byelane, GUWAHATI 781003

5-8-56C L. N. Gupta Marg, (Nampally Station Road), 22 10 83  
HYDERABAD 500001

R14 Yudhister Marg, C Scheme, JAIPUR 302005 { 6 34 71  
{ 6 98 32

117/418B Sarvodaya Nagar, KANPUR 208005 { 21 68 76  
{ 21 82 92

Patliputra Industrial Estate, PATNA 800013 6 23 05

Hantex Bldg ( 2nd Floor ), Rly Station Road, 52 27  
TRIVANDRUM 695001

## Inspection Office ( With Sale Point ):

Institution of Engineers ( India ) Building, 1332 Shivaji Nagar, 5 24 35  
PUNE 410005

\*Sales Office in Bombay is at Novelty Chambers, Grant Road, 89 65 28  
Bombay 400007

†Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep 27 68 00  
Street, Calcutta 700072

Reprography Unit, BIS, New Delhi, India