

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 3150 (1982): Hexagonal Wire Netting for General Purposes
[CED 55: Sieves, Sieving and other Sizing Methods]



“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

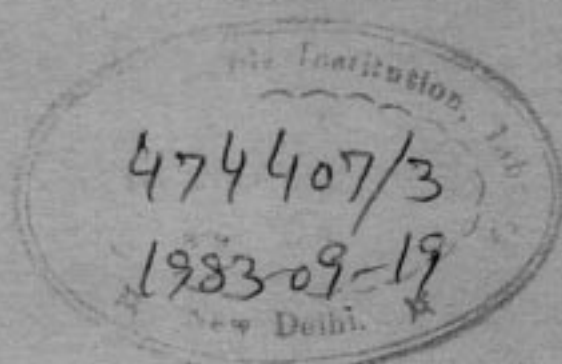
“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



Indian Standard
SPECIFICATION FOR
HEXAGONAL WIRE NETTING FOR
GENERAL PURPOSES
(*Second Revision*)

UDC 677.533 : 669.141.24.426 : 669.586



© Copyright 1983

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

Indian Standard

SPECIFICATION FOR HEXAGONAL WIRE NETTING FOR GENERAL PURPOSES (*Second Revision*)

Sieves, Sieving and Other Sizing Methods Sectional Committee, BDC 19

Chairman

Dr M. Pancholi
A 15/23, Vasant Vihar
New Delhi 110051

Members

SHRI P. N. ARORA

SHRI S. N. ARORA

SHRI S. KUMAR (*Alternate*)

SHRI M. M. BAHAL

LT-COL C. A. RODRIGUES (*Alternate*)

SHRI S. K. BANERJEE

SHRI P. R. DAS (*Alternate*)

SHRI R. K. CHOURARIA

DR P. C. JAIN

SHRI J. N. BOHRA (*Alternate*)

DR P. T. JOHN

SHRI N. K. KOTHARI

SHRI A. R. A. KRISHNAN

SHRI B. K. SINGH (*Alternate*)

SHRI J. MENDONSA

SHRI C. P. SOOD (*Alternate*)

SHRI R. V. RANTHIDEVAN

SHRI S. B. SURI (*Alternate*)

SHRI A. V. S. R. A. SASTRY

SHRI M. N. BALIGA (*Alternate*)

Representing

All India Wire Netting Manufacturers Association,
Bombay

Shalimar Wires & Industries Ltd, Hooghly

Tata-Robins-Fraser Ltd, Jamshedpur

National Test House, Calcutta

M/s Jeetmull Jaichandlall (P) Ltd, Calcutta

National Physical Laboratory, New Delhi

In personal capacity (*Type III No. 749, Jawaharlal
Nehru University Quarters, Utrakhand, New Delhi*)

The Associated Cement Companies Ltd, Bombay
Ministry of Defence (DGI)

All India Instrument Manufacturers & Dealers
Association (Bombay Region), Bombay

Central Water Commission, New Delhi

Associated Instrument Manufacturers (India) Pvt
Ltd, New Delhi

(*Continued on page 2*)

© Copyright 1983

INDIAN STANDARDS INSTITUTION

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.

(Continued from page 1)

Members

SHRI HASMUKH C. SHAH
SHRI C. S. SHARMA
SHRI C. M. P. SINHA

SHRI C. P. SOOD

SHRI G. V. SUBRAMANYA

SHRI S. K. VELINGKER (*Alternate*)
SUPERINTENDENT

SHRI A. K. SEN (*Alternate*)

SHRI G. RAMAN,
Director (Civ Engg)

Representing

Standard Wire Products, Bombay
Cement Corporation of India Ltd, New Delhi
Directorate General of Technical Development, New
Delhi

All India Instrument Manufacturers & Dealers
Association (Delhi Region), Delhi

National Mineral Development Corporation, New
Delhi

Steel Authority of India, New Delhi

Director General, ISI (*Ex-officio Member*)

Secretary

SHRI C. K. BEBARTA
Deputy Director (Civ Engg), ISI

Indian Standard
**SPECIFICATION FOR
HEXAGONAL WIRE NETTING FOR
GENERAL PURPOSES**
(Second Revision)

0. FOREWORD

0.1 This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 30 November 1982, after the draft finalized by the Sieves, Sieving and Other Sizing Methods Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 For giving immediate guidance to the wire netting industry, this standard was first published in 1965 as interim measure by adopting BS 1485 : 1948 'Specification for galvanized wire netting'. This standard was revised in 1966 with a view to changing over completely to metric system and also to allow for suitable forms of treatment other than galvanization in order to conserve the use of scarce material like zinc.

0.2.1 In the present revision, instead of minimum weights of wire netting, the permissible combinations for apertures, wire diameters and widths of the netting have been specified. Further, galvanizing of netting after fabrication has not been permitted now. This standard makes it essential to galvanize the steel wire before fabrication.

0.3 In the formulation of this standard, assistance has been drawn from BS 1485 : 1971 'Specification for galvanized wire netting', issued by the British Standards Institution.

0.4 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 test or analysis, 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.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard lays down the requirements for hexagonal wire netting used for general purposes.

2. TERMINOLOGY

2.0 For the purpose of this standard the following definition shall apply.

2.1 **Wire Netting** — Wire netting woven so as to produce hexagonal openings of uniform size.

3. MATERIAL

3.1 The wire used in the manufacture of netting shall be annealed mild steel wire conforming to IS : 280-1978*. The wire shall be galvanized before weaving.

4. CONSTRUCTION

4.1 **General** — The netting shall be regularly woven in the hexagonal meshes of sizes, wire diameters and widths given in Tables 1, 2 and 3.

4.2 **Wire Diameters** — The diameters of wire used in the manufacture of netting, with tolerances thereon, shall be as given in Table 1.

TABLE 1 WIRE DIAMETERS

All dimensions in millimetres.

ANNEALED WIRE DIAMETER	TOLERANCES ON ANNEALED WIRE DIAMETERS
(1)	(2)
0.63	± 0.02
0.80	± 0.02
0.90	± 0.02
1.12	± 0.03
1.25	± 0.03
1.40	± 0.03
1.60	± 0.04
1.80	± 0.04

*Specification for mild steel wire for general engineering purposes (*third revision*).

4.3 Standard Apertures and Widths — The size of apertures, the wires diameters and the widths in which wire netting shall be manufactured are given in Table 2. The size of the apertures shall be the inside dimension a as shown in Fig. 1.

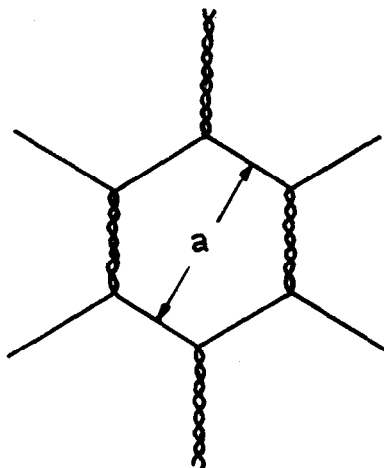


FIG. 1 SIZE OF APERTURES

4.4 Tolerances — The tolerances on openings and widths of netting shall be as given in Table 3.

5. FINISH

5.1 Netting Woven from Galvanized Wire — The galvanized coating of steel wire shall conform to all the requirements and tests specified in IS : 4826-1979*. The types of coating to be done, namely light coating, medium coating and heavily coating (see IS : 4826-1979*) shall be as per the agreement between the purchaser and the manufacturer.

5.2 Suitable forms of treatment other than galvanization may be permitted if agreed to between the purchaser and the manufacturer.

*Specification for hot dipped galvanized coatings on round steel wires (first revision).

TABLE 2 SIZES OF APERTURES, WIRE DIAMETERS AND WIDTHS

(Clauses 4.1 and 4.3)

SIZE OF APER- TURE	WIRE DIA- METER	WIDTH (in millimetres)									
		300	450	600	750	900	1 000	1 050	1 200	1 500	1 800
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
mm	mm										
10	0.63			x		x					
13	0.63	x	x	x	x	x		x	x	x	x
	0.90		x	x	x	x			x		x
19	0.63	x	x	x	x	x			x		x
	0.80	x	x	x	x	x		x	x	x	x
	1.12		x			x					
25	0.80	x	x	x	x	x		x	x	x	x
	0.90	x	x	x	x	x		x	x	x	x
	1.40		x	x		x			x		
31	0.90	x	x	x	x	x		x	x	x	x
	1.12			x	x	x		x	x	x	
	1.40							x			
38	0.90	x	x	x	x	x		x	x	x	x
	1.12					x		x			
	1.25				x						
50	0.90	x	x	x	x	x		x	x	x	x
	1.25			x		x			x		x

75	{ 0.90	x	x	x	x	x		x	x	x	x
(2-ply selvedge)	{ 1.25					x					
100	{ 1.25			x	x						
(2-ply selvedge)	{ 1.40		x	x	x			x			
100	{ 1.40			x	x	x					
(3-ply selvedge)	{ 1.80			x		x					
75	1.40					x		x	x		
(1 centre strand 3-ply selvedge)											
100	{ 1.40				x	x	x	x	x		
(1 centre strand	{ 1.60					x	x	x			
3-ply selvedge)	{ 1.80				x	x		x	x		

NOTE — x indicates the permissible combination for an aperture, wire diameter and width of the netting.

TABLE 3 TOLERANCES ON APERTURE AND WIDTH OF NETTING
(*Clauses 4.1 and 4.4*)

SIZE OF APERTURE	TOLERANCES ON APERTURE	TOLERANCES ON WIDTH
(1)	(2)	(3)
mm	mm	mm
10	+ 2	{ + 10 - 20
13	+ 4	{ + 15 - 20
19	+ 5	{ + 15 - 20
25	+ 6	{ + 15 - 20
31	+ 7	{ + 25 - 20
38	+ 7	{ + 25 - 25
50	+ 10	{ + 50 - 25
75	+ 12	{ + 50 - 25
100	+ 15	{ + 50 - 50

6. LENGTH OF ROLLS

6.1 The netting shall normally be supplied in rolls of 50 m. The apertures and wire designations indicated in Table 2 may also be supplied in lengths other than 50 m if so agreed to between the manufacturer and the purchaser.

7. FREEDOM FROM DEFECTS

7.1 The finished surface of netting shall be even, without any distortions. The netting shall not have any in between break in the wires in either direction.

8. MARKING

8.1 Each roll shall be clearly marked with the following information:

- a) Manufacturer's name or trade-mark;
- b) Width and length; and
- c) Size of aperture, and diameter of wire.

8.2 Each roll may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

9. PACKING

9.1 Each roll of netting shall be suitably packed to avoid damage during transit.

NOTE — The method of packing shall be as agreed to between the manufacturer and the user.

10. SAMPLING

10.1 Unless otherwise agreed to, the method of drawing representative samples of the netting and the criteria for conformity shall be as prescribed in Appendix A.

APPENDIX A

(Clause 10.1)

SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — All the rolls of hexagonal wire netting of the same wire diameter and aperture size manufactured from similar materials under similar conditions of manufacturer, shall be grouped together to constitute a lot.

A-1.2 Each lot shall be taken up separately for determining its conformity to the requirements of this specification. For this purpose samples shall be taken depending upon the size of the lot in accordance with **A-1.2.1**.

A-1.2.1 The number of sample rolls to be taken from the lot shall be in accordance with level IV of Tables 1 and 2 of IS : 2500 (Part I)-1973*.

*Sampling inspection tables: Part I Inspection by attributes and by count of defects (first revision).

A-2. CRITERIA FOR CONFORMITY

A-2.1 All the sample rolls selected in **A-1.2.1** shall be inspected for all the requirements of this specification. Any sample roll failing in any one or more of the requirements shall be termed as a defective.

A-2.2 Based on the number of defective sample rolls the criterion to determine the conformity or otherwise of the lot to the requirements of this specification shall be in accordance with the AQL of 2.5 percent as given in Table 2 of IS : 2500 (Part I)-1973*.

*Sampling inspection tables: Part I Inspection by attributes and by count of defects
(first revision).



AMENDMENT NO. 1 JUNE 1985

TO

IS:3150-1982 SPECIFICATION FOR HEXAGONAL WIRE
NETTING FOR GENERAL PURPOSES

(Second Revision)

(Page 8, Table 3, col 2):

- a) *Against 'Size of Aperture 25 mm' - Substitute '+5' for '+6'.*
- b) *Against 'Size of Aperture 31 mm' - Substitute '+6' for '+7'.*

(BDC 19)

Reprography Unit, ISI, New Delhi, India