



**DRAFT TANZANIA STANDARD**

**MEDC2 (5001) P3 – INDUSTRIAL WIRE CLOTH FOR GENERAL PURPOSES**

**FOR STAKEHOLDERS COMMENTS ONLY**

# SPECIFICATION FOR WIRE CLOTH FOR GENERAL PURPOSES

## 1. SCOPE

1.1 This standard lays down the minimum requirements of material, dimensions and construction of woven wire cloth used for general purposes.

1.2 This standard does not cover wire cloth used for test sieves

## 2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions shall apply.

### 2.1 Woven Wire Cloth

A cloth produced by weaving wires to form uniform square apertures (see Note under 4.1)

2.2 Aperture Size-The width of the clear space between successive wires measured at the centre line of the aperture.

## 3. WIRE

3.1 The wire used in the manufacture of the cloth shall be well and cleanly drawn free from scale, inequalities, splits, etc, of circular cross-section and of uniform ductility throughout to avoid hard lumps or soft spots in the finished cloth.

3.2 **Material of wire** – The wire used in the manufacture of the cloth shall be of brass, bronze, mild steel, aluminium alloy or plastics. Specifications for the material and protective covering on the wire, if any, will be agreed upon between the purchaser and the manufacturer.

3.3 **Diameter of Wire** –The recommended diameters of wire for each aperture size is given in Table I

NOTE –Deviations in the diameter of wire may be permitted by mutual agreement between the purchaser and the manufacturer provided the diameter so selected Call in the R40 series of preferred numbers in IS: 1016.1967t.

**TABLE 1 DIMENSIONS OF WIRE CLOTH FOR GENERAL PURPOSES (Clauses 3.3, 5.1, 5.2, 2.1, 5.2 .2.2, A-1.2and A-2.1)**

AVERAGE WIDTH OF APARTURE	MAXIMUM PERMISSIBLE VARIATION IN	MAXIMUM PERMISSIBLE VARIATION IN	NOMINAL DIAMETER OF WIRE SIZE
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	AVERAGE APERTURE SIZE	INDIVIDUAL APERTURE SIZE	
1.70mm 1.40mm 1.18mm 1.00mm	Percent  ±10	Percent  +20	mm 0.32,0.4,0.56,0.8 0.25,0.32,0.45,0.63,0.71 0.25,0.32. 0.41, 0.45,0.56,0.63, 0.22, 0.28, 0.36,0.5 ,0.56
850 microns 710 microns 600 microns 500 microns 425 microns	±10	+30	0.2, 0.25, 0.32, 0.45, 0.50, 0.56, 0.18, 0.25, 0.32,0.45, 0.16, 0.22,0.28,0.4 0.14,0.2,0.25,0.32,0.36 0.14,0.2, 0.25 ,0.28
355 microns 300 microns 250 microns 212 microns 180 microns 150 microns	±15	+40	0.125, 0.18, 0.22, 0.25 0.112,0.16, 0.1 0.14, 0.16, 0.2, 0.1, 0.125, 0.14,0.16, 0.18 0.08,0.112, 0.125, 0.14, 0.071,0.1,0.112,0.125

#### 4. CONSTRUCTION

4. The cloth shall be regularly woven with a number of equally spaced parallel wires in both warp and weft directions to produce uniform square meshes or openings (see Note). The wire cloth shall be properly salvaged by one or more wires in each edge.

NOTE-Rectangular apertures may also be used for which the user will separately specify the dimensions and tolerances.

4.2 Crimping of wires may be done, where necessary, to facilitate construction and to minimize distortion of apertures.

#### 5. DIMENSIONS AND TOLERANCES

5.1 Dimensions – The dimensions of wire cloth shall be in accordance with Table 1

5.1.1 The length of the wire cloth shall be 15m or 30m and the width 300mm, 450mm, 600mm, 900mm or 1200mm. The length and the width shall be specified by the purchaser.

5.2 Tolerance.

5.2.1 Tolerance on Width of the Cloth-A tolerance of ±5 mm shall be allowed on the width of the cloth as specified in 5.1.

5.2.2 Tolerance on Width of Aperture

5.2.2.1 Tolerance on average aperture-The average of the width of all measured apertures (see Appendix A) shall not depart from the nominal aperture by more than appropriate tolerances specified in Table 1.

5.2.2.2 Maximum tolerance-No individual aperture shall exceed the nominal aperture by more than the appropriate tolerances specified in Table 1.

## 6. DESIGNATION

6.1 The wire cloth shall be designated by its nominal aperture width and diameter of the wire in millimetres or microns as the case may be followed by the material of the wire and the inscription (wire cloth)

### Example:

- a) 1.40 X 0.710 mm mild steel wire cloth
- b) 600X400 microns phosphor bronze wire cloth

## 7. SAMPLING AND INSPECTION

7.1 One roll from every five rolls of wire cloth delivered shall be taken at random and a sample with a minimum length of 600mm shall be cut from the entire width of the roll for inspection and test.

7.2 The wire cloth selected in accordance with 7.1 shall be inspected and tested for the requirements laid down in this standard.

## 8. REJECTION

8.1 If any sample fails to comply with the test the whole lot represented by such a sample shall be rejected.

## 9. PACKING

9.1 The wire cloth shall be wrapped in kraft paper and thereafter packed as desired by the purchaser.

## 10. MARKING

10.1 Each package shall be clearly marked with the following information:

- a) Wire cloth designation (see 6),
- b) Width and length, and
- c) Manufacturer's name or trade-mark.

10.2 The product may also be marked with Standard Mark.

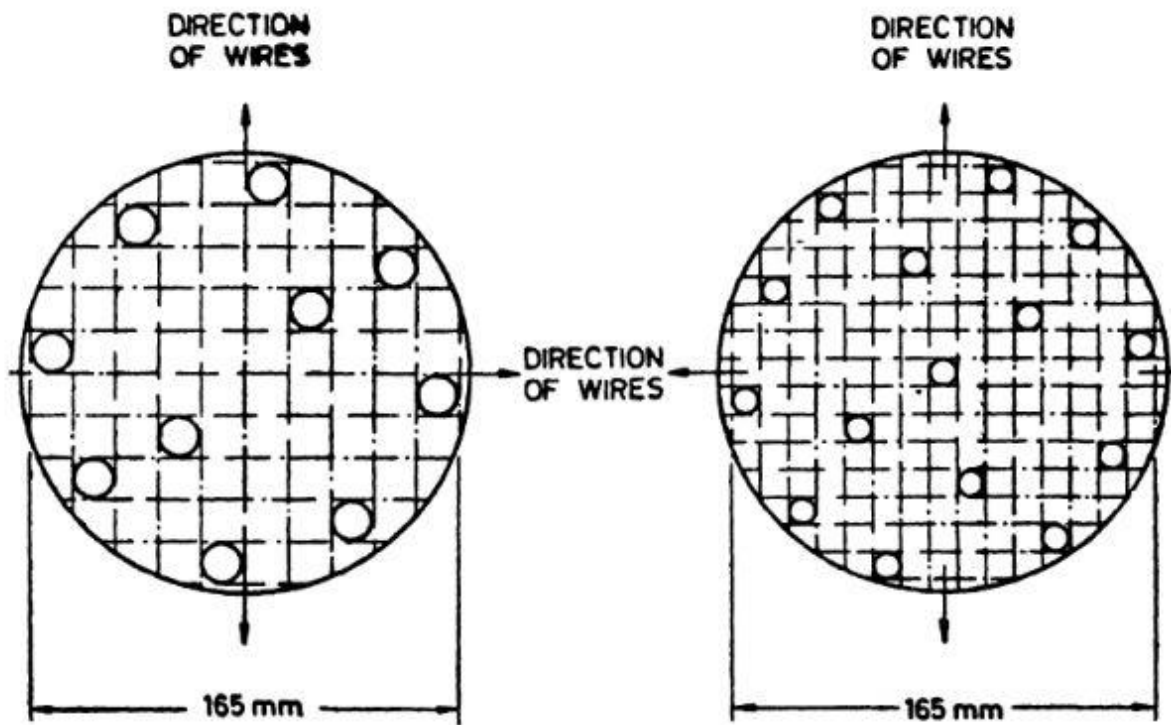
10.2.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made there under. The detail of conditions under which the licence for the use of Standard Mark may be granted to manufactures or producers may be obtained from the bureau of Indian Standards

## APPENDIX A (Clause 5.2.2.1)

### METHOD OF EXAMINATION OF CLOTH

#### A-I. APERTURE WIDTH

A-1.1 Average Aperture Width – To determine whether the wire cloth complies with the requirement specified in Table 1, the total number of apertures measured in each direction shall be not less than those given in Table 2. The measurements shall be made in ten or fifteen fields (see Table 2) as the case may be, so chosen that no two fields are crossed by the same wire. Diagrams of masks suitable for defining the fields of measurement are illustrated in Fig. 1.



**FIG 1 MASKS FOR DEFINING THE FIELDS OF MEASUREMENTS**

A-1.2 Measurement for Determination or Maximum Variation in Individual Aperture – To determine whether the wire cloth complies with the requirements specified in Table 1, it shall be examined across two diameters, one across the warp and the other across the weft.

## A-2.WIRE DIAMETER

A-2.1 To determine whether the wire diameter complies with the requirement specified in Table 1, ten, consecutive wires shall be measured in each direction in each field.

**TABLE 2 NUMBER OF APERTURES TO BE MEASURED (Clause -1.1)**

NOMINAL APETURE OF WIRE CLOTH	No. OF FIELDS	MAXIMUM NUMBER OF CONSECUTIVE APERTURE TO BE MEASURED IN EACH DIRECTION	
		In each Field	In all fields
1.70 mm	10	5	50
1.40 mm	10	6	60
1.18 mm	10	8	80
1.00 mm	10	9	90
850 microns	10	10	100
710 microns	10	12	120
600 microns	10	15	150
500 microns	10	15	150
425 microns	10	20	200
355 microns	10	25	250
300 microns	10	30	300
250 microns	10	30	300
212 microns	15	20	300
180 microns	15	20	300
150 microns	15	25	375

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