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भारतीय मानक मसौदा

वस्त्रादि – धातुशील कार्ड क्लोथिंग – विशिष्टि
भाग 3 सिलेंडर, डोफर और लिकर-इन के लिए तार

[आई एस 9568 (भाग 3) पहला पुनरीक्षण]

Draft Indian Standard

**TEXTILES — METALLIC CARD CLOTHING — SPECIFICATION
PART 3 WIRES FOR CYLINDER, DOFFER AND LICKER-IN**

[*First Revision of IS 9568 (Part 3)*]

ICS 59.120.10

Textile Machinery and Accessories
Sectional Committee, TXD 14

Last date for receipt of comment is
24 September 2024

FOREWORD

(Formal clauses will be added later)

During processing of cotton for spinning, carding quality is critically influenced by the characteristics of metallic card clothing. This standard specifies the requirement of the same which govern the quality of carding.

This standard (Part 3) forms part of the series of standards on metallic card clothing. Part 1 of the standard covers terminology and Part 2 covers requirements for bead wires. This standard was published in 1982. The present revision has been made to incorporate the following changes:

- a) Reference clause has been updated; and
- b) Finish, Dimensions, Packing and Marking clause have been modified.

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, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of the significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard (Part 3) specifies the requirements for metallic card clothing used on cylinder, doffer and licker-in of cards.

2 REFERENCE

The standard listed below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standard are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard listed below.

<i>IS No.</i>	<i>Title</i>
IS 1501 (Part 1) : 2020	Metallic Materials — Vickers Hardness Test Part 1 Test Method (<i>fifth revision</i>)

3 RAW MATERIAL

The metallic card clothing shall be made of carbon steel or any other suitable steel wire as agreed to between the buyer and the seller.

4 FINISH

The teeth of metallic wire shall have a smooth finish. The wire shall be free from manufacturing defects like missing/ broken teeth, burrs, rust stains and welded joints.

5 FLEXIBILITY

The flexibility of the metallic wire shall be tested by wrapping it over a cylinder of 125 mm diameter. The wire shall not show any sign of cracking, breaking or splitting.

6 DIMENSIONS

The dimensions of metallic card clothing wire shall conform to the manufacturer's specifications or drawings as agreed to between the buyer and the seller. The declared dimensions shall be subject to the tolerances given in Table 1.

Table 1 Tolerances on Dimensions and Angle of Tooth
(Clause 6)

SI No.	Wire	Pitch	Angle of Tooth	Height of Tooth	Thickness at Base
(1)	(2)	(3)	(4)	(5)	(6)
i)	Cylinder wire	± 0.05 mm	± 0°30'	± 0.03 mm	± 0.02 mm
ii)	Doffer wire	± 0.05 mm	± 0°30'	± 0.03 mm	± 0.02 mm
iii)	Licker-in wire	± 0.1 mm	± 0°30'	± 0.03 mm	± 0.02 mm

7 HARDNESS

7.1 Hardness at the tip of the wire up to a depth of 30 percent of tooth height shall not be below HV 650 in case of cylinder and doffer wire and below HV 550 in case of licker-in wire.

7.1.1 The Vickers hardness shall be determined by the method prescribed in IS 1501.

8 SAMPLING

8.1 Lot

The rolls of wire of same dimensions manufactured from same material and under essentially similar conditions and delivered to a buyer against one despatch note shall constitute a lot.

8.2 The conformity of the lot to the requirements of this standard shall be determined on the basis of the tests carried out on the samples selected from it.

8.3 Unless otherwise agreed to between the buyer and the seller, the number of rolls to be selected at random shall be in accordance with Table 2.

Table 2 Sample Size and Permissible Number of Non-Conforming Rolls
(Clause 8.3)

SI No.	Lot Size in Rolls	Sample Size in Rolls	Permissible Number of Defective Rolls
(1)	(2)	(3)	(4)
i)	up to 50	5	0
ii)	51 to 100	8	0
iii)	101 to 150	13	0
iv)	151 to 300	20	1
v)	301 and above	32	1

8.4 Two test samples shall be taken from each sample roll and tested for finish, dimensions and hardness.

8.5 Five samples of six meter each shall be drawn from five different rolls and tested for flexibility.

8.6 Criteria for Conformity

The lot shall be considered conforming to the requirements of this standard if the following conditions are satisfied:

- a) The number of rolls failing to satisfy any one or more of the characteristics mentioned in **8.4** does not exceed the corresponding number given in col (4) of Table 2; and
- b) All the rolls satisfy the requirement mentioned in **8.5**.

9 MARKING

9.1 Each spool of wire shall bear the following information:

- a) Manufacturer's name, initials or trade-mark, if any;
- b) Type of wire;
- c) Weight of the wire; and
- d) Any other information required by the law in force and/or by the buyer.

9.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product may be marked with the Standard Mark.

10 PACKING

The metallic wire shall be coated with anti-rust coating and wound on spools with a layer of suitable paper in between the layers of wires for proper unwinding of wire from spool. The spools shall be suitably packed in cases which can withstand normal hazards of transport, storage and handling.