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“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”

Indian Standard

DUPION RAW SILK — GRADING AND METHODS OF TEST

PART 3 DETERMINATION OF SPECIAL DEFECTS

ICS 59.060.10
FOREWORD

This Indian Standard (Part 3) was adopted by the Bureau of Indian Standards, after the draft finalized by the Silk and Silk Products Sectional Committee had been approved by the Textile Division Council.

Grading of dupion silk is very important from the viewpoint of quality of the dupion silk and the subsequent products made from it. This will also help the farmers to get the right value of their product and remove malpractices in the dupion silk trade. For raw silk, BIS has already published IS 15090 (Parts 1 to 11) 'Raw silk — Grading and methods of tests'.

This standard is published in five parts. The other parts in the series are:

- Part 1  Grading
- Part 2  Visual examination
- Part 4  Conducting winding test
- Part 5  Determination of average size and size uniformity range

This standard prescribes a method of test to determine the kind and number of special defects in dupion raw silk.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

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 'Rules for rounding off numerical values (revised)'. 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

This standard (Part 3) prescribes a method of test to determine the kind and number of special defects in dupion raw silk.

2 CLASSIFICATION OF SPECIAL DEFECTS

The special defects are divided into 5 categories as described below:

a) **Black Specks**:
   1) Large
   2) Medium
   3) Small
b) **Brown Specks**:
   c) **Adhering Husks**:
   d) **Special Major Slugs**:
   e) **Foreign Matter**:

3 APPARATUS

3.1 Silk Examination Stand — A wooden stand on which the hank can be placed for inspection. It facilitates the rotation of the hank so that all parts of the hank can be examined.

3.2 Weighing Balance — Weighing balance having an accuracy of 0.1 g and capacity of 1000 g.

3.3 Measuring Scale — Measuring scale of minimum 60 cm length and graduated in mm.

4 TEST SAMPLE

The sample for the test shall be 4 skeins drawn from different parts of the lot.

5 PROCEDURE

5.1 A skein shall be placed on the examination stand and the silk evenly spread out without removing the lacing threads. The different kinds and number of special defects in dupion raw silk shall be determined throughout the hank by rotating it.

5.2 The total number of defects in each category (see 2.1) is counted separately and multiplied by standard penalty as follows:

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Types of Defect</th>
<th>Standard Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Black specks</td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>Brown specks</td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>Adhering husks</td>
<td></td>
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<tr>
<td>iv)</td>
<td>Special major slugs</td>
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<tr>
<td>v)</td>
<td>Foreign matter</td>
<td></td>
</tr>
</tbody>
</table>

5.3 Each skein shall be weighed individually and its weight recorded. The total mass shall be calculated from the individual values.

5.4 From the sum of the penalty and the total mass of the skeins, the special defects (penalties) is calculated using the following formula:

\[
\text{Special defect} = \frac{\text{Total penalty} \times 300 \text{ (constant)}}{\text{Total weight of the skeins}}
\]

6 REPORT

6.1 The report shall consist of a table showing the total number of defects under the type and size to which they belong, the penalty calculated there from, and the total mass of each of the skeins used for the test. The total penalty shall be calculated on 300 g mass basis by multiplying the coefficient (300/total mass) with the total penalties actually obtained, the decimals being omitted.

6.2 The results shall be reported in format as given in Annex A.
### Report of Special Defects of Dupion Raw Silk

**Conducted in accordance with IS 15825 (Part 3)**

<table>
<thead>
<tr>
<th>Skein No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total No. of Defects</th>
<th>Standard Penalty</th>
<th>Total Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass of Skein, g</td>
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<td>Number of Defects</td>
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<td>Type of Special Defects</td>
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<td>Black Specks</td>
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<td>Medium</td>
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<td>Small</td>
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<td></td>
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<tr>
<td>Brown Specks</td>
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<td></td>
<td></td>
<td></td>
<td>1</td>
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<tr>
<td>Adhering Husks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Special Major Defects</td>
<td></td>
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<td></td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Foreign Matter</td>
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<td></td>
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<td></td>
<td>1</td>
<td></td>
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<tr>
<td>Total Penalties</td>
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<td></td>
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</tr>
<tr>
<td>Special Defects</td>
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**Remarks:**

Date: [Signatures]

Signature of Tester
ANNEX B
(Foreword)

COMMITTEE COMPOSITION
Silk and Silk Products Sectional Committee, TXD 28

Organization

Central Silk Technological Research Institute, Bangalore
Association of Corporations & Apex Societies of Handlooms, New Delhi
Central Silk Board, Bangalore
Chamundi Textiles (Silk Mills) Limited, Bangalore
Directorate of Handlooms & Textiles, Government of Tamil Nadu, Chennai
Himatsingka Seide Limited, Bangalore
Indian Silk Export Promotion Council, Mumbai
Karnataka Silk Industries Corporation, Bangalore
Karnataka State Sericulture Development Institute, Bangalore
Khadi & Village Industries Commission, Mumbai
National Handloom Development Corporation Ltd, Lucknow
Office of Development Commissioner for Handlooms, Government of India, New Delhi
Office of Director of Handloom & Textiles, Government of Karnataka, Bangalore
Office of the Textile Commissioner, Mumbai
Shriram Institute for Industrial Research, Delhi
Silk Conditioning and Testing House, Bangalore
The Tamil Nadu Handloom Weaver’s Cooperative Society Ltd, Chennai
Weavers’ Service Centre, Ministry of Textiles, Bangalore
BIS Directorate General

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Assistant Secretary (Inspection) (Alternate)
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Shri Ravindra Bhandiwad (Alternate)
Representative
Shri V. K. Goval
Shri S. Rautela (Alternate)
Principal, Indian Institute of Handloom Technology, Salem
Joint Director (Textiles)
Deputy Director (Handlooms) (Alternate)
Shri S. G. Verma
Shri S. Ramakrishnan (Alternate)
Ms Neena Sehgal
Dr R. K. Raina (Alternate)
Representative
Shri G. Gunasekaran
Shri Alok Babelay (Alternate)
Director
Deputy Director (Alternate)
Shri M. S. Verma, Scientist ‘F’ & Head (Textiles)
[Representing Director General (Ex-officio)]

Member Secretary
Shri J. K. Gupta
Scientist ‘C’ (Textiles), BIS
Bureau of Indian Standards

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Amendments Issued Since Publication

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