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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”


“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”
Bhartrhari—Nitisatakam
“Knowledge is such a treasure which cannot be stolen”
AMENDMENT NO. 1 FEBRUARY 2005
TO
IS 5982 : 2003 PLANTATION WHITE SUGAR — SPECIFICATION
( First Revision )

( Page 2, clause 7.1 ) — Substitute items for the following:
'd) Month and year of manufacture;
e) Batch or code number;
f) The words 'Best before………' (month and year to be indicated); and
g) Any other requirements as specified under the Standards of Weights and Measures (Packaged Commodities) Rules,1977 and Prevention of Food Adulteration Act, 1954 and Rules framed thereunder.'

( Page 2, clause 7.1 ) — Insert a new clause 7.1.1 after clause 7.1:
'The words 'Best before………' (month and year to be indicated); and
Any other requirements as specified under the Standards of Weights and Measures (Packaged Commodities) Rules,1977 and Prevention of Food Adulteration Act, 1954 and Rules framed thereunder.'

‘7.1.1 In case of wholesale packages, the declaration of particulars as given under clause 7.1 (d) and (f) are optional.'
[Page 2, clause 7.1(c)] — Substitute ‘Net quantity’ for ‘Net weight’.

(FAD 2)
FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Sugar Industry Sectional Committee had been approved by the Food and Agriculture Division Council.

This standard was first published in 1970 to define the chemical characteristics for identification of plantation white sugar for differentiation from other sugars. This revision is being undertaken in view of the following:

a) To align with the revised Codex Standard for Sugars, CODEX STAN 212-1999;
b) To align the methods of test with the International Commission for Uniform Methods of Sugar Analysis (ICUMSA); and
c) Provision of consumer packs for packing plantation white sugar.

Grading of plantation white sugar on the basis of visual comparison of colour and grain size is prescribed in IS 498 ‘Grading for vacuum pan sugar (fourth revision)’.

In the preparation of this standard due consideration has been given to the provisions of the Prevention of Food Adulteration Act, 1954 and rules framed thereunder. However, this standard is subject to restrictions imposed under this Act, wherever applicable.

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.
IS 5982: 2003

Indian Standard

PLANTATION WHITE SUGAR — SPECIFICATION
(First Revision)

1 SCOPE
This standard prescribes the requirements and the methods of sampling and test for plantation white sugar. This standard does not cover grading of plantation white sugar, which has already been covered in IS 498.

2 REFERENCES
The following standards contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards 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 standards given below:

<table>
<thead>
<tr>
<th>IS No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>498:1985</td>
<td>Grading for vacuum pan sugar (plantation white) (fourth revision)</td>
</tr>
<tr>
<td>1152:2003</td>
<td>Icing sugar — Specification (second revision)</td>
</tr>
<tr>
<td>4905:1968</td>
<td>Methods for random sampling</td>
</tr>
<tr>
<td>10146:1982</td>
<td>Specification for polyethylene for its safe use in contact with foodstuffs, pharmaceuticals and drinking water</td>
</tr>
<tr>
<td>10910:1984</td>
<td>Specification for polypropylene and its copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water</td>
</tr>
<tr>
<td>14350:1996</td>
<td>Code for hygienic conditions in sugar factories</td>
</tr>
<tr>
<td>15279:2003</td>
<td>Sugar and sugar products — Methods of test</td>
</tr>
</tbody>
</table>

3 TERMINOLOGY
3.0 For the purpose of this standard, the following definition shall apply.

3.1 Plantation White Sugar — Purified and crystallized sucrose (saccharose) with a polarization not less than 99.5°Z and a moisture content (loss on drying) of not more than 0.10 percent.

4 GRADES
The number of grades and method of grading for plantation white sugar shall be in accordance with IS 498.

5 REQUIREMENTS

5.1 Description
The material shall be crystalline, white, odourless and free from dirt, iron filings and other extraneous matter.

5.2 The product shall also comply with the requirements given in Table 1.

5.3 Plantation white sugar shall be manufactured, packed, stored and distributed under hygienic conditions (see IS 14350).

Table 1 Requirements for Plantation White Sugar
(Clause 5.2)

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Characteristic</th>
<th>Requirement</th>
<th>Method of Test, Ref to Clause of IS 15279</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>i)</td>
<td>Loss on drying, percent by mass, Max</td>
<td>0.10</td>
<td>4</td>
</tr>
<tr>
<td>ii)</td>
<td>Polarization, Min</td>
<td>99.5°Z</td>
<td>5</td>
</tr>
<tr>
<td>iii)</td>
<td>Reducing sugars, percent by mass, Max</td>
<td>0.10</td>
<td>7</td>
</tr>
<tr>
<td>iv)</td>
<td>Colour in ICUMSA units, Max</td>
<td>150</td>
<td>8</td>
</tr>
<tr>
<td>v)</td>
<td>Conductivity ash, percent by mass, Max</td>
<td>0.1</td>
<td>9</td>
</tr>
<tr>
<td>vi)</td>
<td>Sulphur dioxide, mg/kg, Max</td>
<td>70</td>
<td>13</td>
</tr>
<tr>
<td>vii)</td>
<td>Lead, mg/kg, Max</td>
<td>5.0</td>
<td>15</td>
</tr>
</tbody>
</table>

6 PACKING
6.1 Plantation white sugar shall be packed in clean, sound and new jute bags (see IS 1943) or bags made of polypropylene (see IS 10910) or bags made of high density polyethylene (see IS 10146). The jute bags may be lined with polyethylene film. The mouth of each bag shall be either machine-stitched or rolled over and hand-stitched. If hand-stitched, the stitches shall be in two rows with at least 14 stitches in each row.

6.1.1 In the case of smaller consumer packs, the product shall be packed in foodgrade plastics conforming to relevant Indian Standard or any other suitable non-toxic material.

7 MARKING
7.1 Each bag/pack shall bear legibly and indelibly the following particulars:

   a) Name of the product;
b) Name and address of manufacturer;
c) Net weight of sugar in the bag;
d) Month and year of manufacture;
d) Batch or code number;
e) The words ‘Best before …….’ (month and year to be indicated); and
f) Any other requirements as specified under the Standards of Weights and Measures (Packaged Commodities) Rules, 1977 and Prevention of Food Adulteration Act, 1954 and Rules framed thereunder.

7.2 BIS Certification Marking

The product may also be marked with the Standard Mark.

7.2.1 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 thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

8 SAMPLING

Representative samples of plantation white sugar shall be drawn and the criteria for conformity to this standard shall be established, according to the method prescribed in Annex A. In case of consumer packs, samples of plantation white sugar shall be drawn and the criteria for conformity to this standard shall be established, according to the method prescribed in Annex A.

ANNEX A

(Clause 8)

SAMPLING OF PLANTATION WHITE SUGAR

A-1 GENERAL REQUIREMENTS OF SAMPLING

A-1.0 In drawing, preparing, storing and handling of samples, the following precautions and directions shall be observed.

A-1.1 Samples shall be taken in a protected place not exposed to damp air, dust or soot.

A-1.2 The sampling instruments shall be clean and dry when used.

A-1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instruments and the containers for samples from adventitious contamination.

A-1.4 The samples shall be placed in clean, dry, and moisture-proof containers.

A-1.5 The sample containers shall be sealed airtight after filling, and marked with full details of sampling, the date of sampling, grade of sugar, season of manufacture, name and place of factory and other important particulars of the consignment.

A-1.6 Samples shall be protected from light as far as possible.

A-2 SCALE OF SAMPLING

A-2.1 Lot

All the bags in a single consignment declared to contain sugar of one grade shall constitute a lot. If a consignment is declared to consist of different grades, the bags belonging to the same grade shall be grouped together and each such group shall constitute a separate lot.

A-2.1.1 Samples shall be tested separately for each lot for ascertaining the conformity of the graded sugar.

A-2.2 The number of bags to be selected from the lot shall depend on the size \(N\) of the lot and shall be in accordance with col 1 and 2 of Table 2.

A-2.2.1 These bags shall be selected at random from the lot and in order to ensure the randomness of selection; procedure given in IS 4905 may be followed.

A-2.2.2 In case the bags are arranged in stacks in a
godown, the bags may be taken for sampling purposes from all exposed sides of the stack.

Table 2 Number of Bags to be Selected from the Lot for Sampling (Clause A-2.2)

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Lot Size</th>
<th>No. of Bags to be Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>(2)</td>
<td>8 - 25</td>
<td>8</td>
</tr>
<tr>
<td>(3)</td>
<td>26 - 100</td>
<td>13</td>
</tr>
<tr>
<td>(4)</td>
<td>101 - 500</td>
<td>32</td>
</tr>
<tr>
<td>(5)</td>
<td>501 - 1,000</td>
<td>50</td>
</tr>
<tr>
<td>(6)</td>
<td>1,001 and above</td>
<td>80</td>
</tr>
</tbody>
</table>

A-3 TEST SAMPLES AND REFEREE SAMPLE

From the top, middle and bottom portions of each of the selected bags (see A-2) approximately equal quantity of the sugar shall be taken with the help of a suitable sampling instrument. The sample collected from each of the bags shall be mixed thoroughly to constitute a composite sample of 600 g. The composite sample thus prepared shall be divided approximately into three equal parts; one for the purchaser, one for the supplier and the third for the referee; and sealed air-tight with the particulars as given in A-1.5.

A-4 NUMBER OF TESTS

The composite sample prepared as under A-3 shall be tested for the characteristics as prescribed in Table 1.

A-5 CRITERIA FOR CONFORMITY

The lot shall be declared as conforming to this specification when the test results on various characteristics obtained on the composite sample satisfy the corresponding requirements.
Bureau of Indian Standards

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This Indian Standard has been developed from Doc: No. FAD 2 (1371).

Amendments Issued Since Publication

<table>
<thead>
<tr>
<th>Amend No.</th>
<th>Date of Issue</th>
<th>Text Affected</th>
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