## SRI LANKA STANDARD 542: 1981

UDC 663.974

# SPECIFICATION FOR BEEDI TOBACCO

**BUREAU OF CEYLON STANDARDS** 



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SLS 542 : 1981

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This Standard does not purport to include all the necessary provisions of a contract.



SLS 542 : 1981

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#### **FOREWORD**

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Bureau of Ceylon Standards on 1981-11-26 after the draft, finalised by the Drafting Committee on Beedi, had been approved by the Agricultural and Food Products Divisional Committee.

In Sri Lanka, beedi tobacco is cultivated in the central and northern districts of the island. It is a small holder's crop, grown in small areas of maximum one hectare. Unfortunately, not much research work has been done to improve the quality and quantity of beedi tobacco.

This specification will help the producer to aim at producing a good quality leaf, while it will help the beedi manufacturer to use only accepted grades in the manufacture of beedi. It will also help to have a uniform grading system.

This specification does not specify any chemical requirements for different grades, as in the manufacture of beedi, a blend of grades will be used. It is a known fact that tobacco grown in the northern part of the island will have a higher chloride content due to soil condition prevalent there.

This specification does not cover requirements for beedi wrapper leaf.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with CS 102. The number of significant figures to be retained in the rounded off value shall be the same as that of the specified value in this specification.

#### 1 SCOPE

This specification prescribes the requirements, methods of sampling and test for sun-cured beedi tobacco.

#### 2 REFERENCES

- CS 102 Presentation of numerical values
- SLS 309 Part 1 Test methods for tobacco in tobacco products
- SLS 428 Random sampling methods

#### 3 GRADE DESCRIPTION

Beedi tobacco shall be graded as follows :

- **Grade 1 Top leaves of good body and texture, spangulation, bright greenish-yellow in colour.**
- Grade 2 Top leaves of good body and texture, fewer spangles, brownish yellow in colour.
- Grade 3 Bottom leaves of medium body, good texture, yellowish to brownish yellow in colour (sand leaves will not be accepted).
- Grade 4 Leaf pieces from Grade 1, 2 and 3 should be more than 50 mm in size and may be with a mid rib (but the basal one-third of the mid rib will not be accepted).

#### 4 REQUIREMENTS

#### 4.1 Freedom from mould attack

Beedi tobacco shall be free from mould attack when examined by the method prescribed in Clause 5 of SLS 309 : Part 1

#### 4.2 Freedom from tobacco beetle attack

Beedi tobacco shall be free from tobacco beetle attack when examined by the method prescribed in Appendix A.

#### 4.3 Freedom from harmful substances and additives

Beedi tobacco shall not contain any plant protection products prohibited by the Director of Agriculture.

#### 4.4 Freedom from foreign matter and non-permitted leaves

Beedi tobacco shall not contain non-tobacco foreign matter such as jute, straw, sand etc. It shall also not contain perished, blackish, dead green, sand or sucker leaves.

#### 4.5 Moisture

The moisture content of beedi tobacco shall be between 15.0 and 18.0 when determined by the method prescribed in Clause 4 of SLS 309: Part 1

SLS 542 : 1981

#### 5 PACKAGING AND MARKING

#### 5.1 Packaging

Beedi tobacco shall be packed in bales. A bale shall not exceed 50 kg in mass. The material of the bale shall not have an adverse effect on the tobacco.

#### 5.2 Marking

The following particulars shall be legibly and indelibly marked on each bale :

- a) Description of contents, with grade;
- b) Name and address of the producer or the registered grower's mark;
- c) Area of cultivation;
- d) Date of packaging;
- e) Net, gross and tare weight; and
- f) Bale number.

#### 6 SAMPLING

Representative samples of beedi tobacco leaves shall be drawn as prescribed in Appendix B for testing conformity to this specification at the time of delivery or immediately after it is sorted into different grades.

#### 7 CRITERIA FOR CONFORMITY

The lot shall be considered as conforming to this specification if the following conditions are satisfied:

- 7.1 Each of the test results of the composite sample satisfies the corresponding requirements.
- 7.2 Each of the test results on individual samples for moisture shall satisfy the corresponding requirement. If one or more of the test results does not satisfy the requirement, the conformity of the lot to this requirement shall be ascertained in accordance with 7.2.1.
- 7.2.1 The mean and the range or mean range (see Note) of the test results shall be calculated as follows:

Mean 
$$(\overline{X})$$
 =  $\frac{\text{Sum of results}}{\text{No. of test results}}$ 

Range R = Difference between maximum and minimum of test results

Mean Range (R) = The average range of a set of 5 observations chosen at random.

NOTE - If the number of observations is less than 10, the range shall be used. If it is more than 10, the mean range shall be used.

The lot shall be deemed to have satisfied this requirement. If X + 0.4 R or  $\overline{X} + 0.4 \overline{R}$  shall lie between 15.0 and 18.0

#### APPENDIX A

#### EXAMINATION FOR FREEDOM FROM TOBACCO BEETLE ATTACK

Examine the sample of beedi tobacco leaves carefully for Lasioderma serricorne (tobacco beetle) in all its stages, that is, larval, pupal, alive or dead adult, by naked eye (corrected for abnormal vision). A hand lens( magnification x 10) may also be used. In case a larger magnification is used, this fact shall be stated in the test report.

#### APPENDIX B

#### SAMPLING

#### B.1 GENERAL REQUIREMENTS OF SAMPLING

- B.1.1 Samples shall be taken in a protected place not exposed to damp air and dust.
- B.1.2 The samples, material being sampled and the containers for samples shall be protected from adventitious contamination and loss or gain of moisture.
- B.1.3 The samples shall be placed in clean and dry containers such as polyethylene bags.
- B.1.4 Each container shall be sealed, air-tight after filling and marked with full details of sampling.
- B.1.5 The samples shall be stored in such a manner that the conditions of storage do not unduly affect the quality of material.

#### **B.2 DEFINITIONS**

For the purpose of this sampling scheme the following definition shall apply:

- B.2.1 Lot: All the bales in a consignment of tobacco pertaining to the same grade and belonging to, one grower shall constitute a lot. If a consignment is declared or is known to include different grades or if it appears that the lot is hetrogeneous, the bales containing tobacco of similar grades shall be grouped together and each group thus obtained shall constitute a separate lot.
- **B.2.2 Primary sample**: Amount of tobacco drawn to represent a bale or portion of a bale.

#### B.3 SCALE OF SAMPLING

- B.3.1 Samples shall be tested from each lot for ascertaining their conformity to the requirements of this specification.
- B.3.2 Number of bales to be drawn for sampling shall depend on the size of the lot and be in accordance with the Table 1.

No. of bales in the lot	Number of bales to be selected
Up to 4	2
5 to 8	3
9 to 15	5
16 to 25	7
more than 25	9

TABLE 1 - Selection of bales

- B.3.3 These bales shall be selected at random. To ensure randomness of selection a random number table as specified in SLS 428 shall be used.
- **B:3.4** Primary samples shall be drawn from the bales selected in accordance with **B.3.2** and the number of primary samples to be drawn from a bale shall depend on the mass of the bale and shall be in accordance with Table 2.

TABLE 2 - Selection of primary samples

Mass of the bale	No. of primary samples to be selected
Up to 20 kg	1
20 kg to 40 kg	2
more than 40 kg	3

#### B.4 PREPARATION OF PRIMARY SAMPLES

**B.4.1** If the number of primary sample to be selected from a bale is one, 9 hands shall be drawn from different parts of the bale, and a leaf from each hand shall be taken to form a primary sample of 500 g.

B.4.2 If the number of primary samples to be selected from a bale is two or three, 9 hands shall be drawn from each of upper and lower or upper, middle and lower portions of the bale, respectively, and leaves shall be taken to form a primary sample of 500 g.

#### B.5 INDIVIDUAL SAMPLES AND COMPOSITE SAMPLE

- B.5.1 Each primary sample shall be mixed thoroughly and 100 g shall be taken.
- **B.5.2** Remaining portion of the primary sample shall constitute individual samples to represent a particular bale or portion of a particular bale.
- B.5.3 The individual samples obtained from the lot shall be divided into parts, one of these parts shall be marked for the purchaser, one for the vendor and the third for the referee.
- B.5.4 Each 100 g drawn from the primary samples (see B.5.1) shall be grouped and mixed to form a composite sample.
- B.5.5 The composite sample shall be divided into three equal parts, one shall be marked for the purchaser, one for the vendor and the third for the referee.

#### B.6 NUMBER OF TESTS

- **B.6.1** Test for determination of moisture shall be conducted on each of the individual samples.
- **B.6.2** Test for other requirements given in this specification shall be conducted on the composite sample.

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