SRI LANKA STANDARD 265 : 2011

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SPECIFICATION FOR
JAMS, JELLIES AND MARMALADES
(SECOND REVISION)

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
SPECIFICATION FOR JAMS, JELLIES AND MARMALADES
(Second Revision)

SLS 265 : 2011
(Attached AMD 477, AMD 495 and AMD 572)

Gr.9

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Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

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

Sri Lanka Standard
SPECIFICATION FOR JAMS, JELLIES AND MARMALADES
(Second Revision)

FOREWORD

This standard was approved by the Sectoral Committee on Agricultural and Food Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2011-10-27.

Different varieties of jams, jellies and marmalades are being increasingly consumed in the country. It is, however, necessary to ensure the quality of these products, if the demand is to be maintained and further developed. In order to ensure maintenance of proper quality, it is necessary to have strict quality control based on specifications. It was, therefore, felt necessary to lay down the requirements for all these products.

This standard was first published in 1974 and was subsequently revised in 1985. This second revision has been taken up in order to update the food additives used and to safeguard the health of consumers, by incorporating mould count. The terms “conserve” or “preserve” are sometimes used to represent jam products covered by this specification.

The need was felt to identify a test method for the determination of fruit content. However, in view of the non-availability of a suitable test method, it was decided that it may be included at a later stage. Till such time manufacturers are required to maintain a record showing the quantity of the fruit ingredient added to each batch.

This specification is subject to the restrictions imposed under the Sri Lanka Food Act No. 26 of 1980 and the regulations framed thereunder, wherever applicable.

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 or an analysis, shall be rounded off in accordance with **SLS 102**. The number of significant places retained in the rounded off value should be the same as that of the specified value in this specification.

While revising this standard the assistance derived from the Codex Standard for Jams, Jellies and Marmalades, CODEX STAN 296-2009 is gratefully acknowledged.

1 SCOPE

1.1 This specification prescribes the requirements and methods of sampling and testing for jams, jellies and marmalades, offered for direct consumption, including for catering purposes or for repacking.

1.2 This specification does not cover :

1.2.1 Products when indicated as being intended for further processing such as those intended for use in the manufacture of bakery products, pastries or biscuits.

1.2.2 Products which are clearly intended or labelled as intended for special dietary uses.

1.2.3 Reduced sugar products or those with a very low sugar content.

1.2.4 Products whose sweetening properties have been replaced wholly or partially by non-nutritive sweeteners.

2 REFERENCES

SLS 102 Rules for rounding off numerical values
SLS 143 Code of practice for general principles of food hygiene
SLS 191 White sugar
SLS 209 Code of hygienic practice for the manufacture of fruit and vegetable products (processed)
SLS 428 Random sampling methods
SLS 464 Bees honey
SLS 467 Code of practice for labelling of prepackaged foods
SLS 617 Glucose
SLS 772 Treacle
SLS 883 Brown sugar
SLS 1332 Methods of test for fruits and vegetable products
Part 2 : Determination of soluble solids – Refractometric method
Part 3 : Determination of benzoic acid and sorbic acid concentrations
Part 5 : Determination of total sulphur dioxide content
Part 6 : Determination of sulphur dioxide content
Part 7 : Determination of cadmium content
Part 8 : Determination of lead content
Part 9 : Determination of arsenic content
Part 10 : Determination of tin content

3 DEFINITIONS

For the purpose of this specification, the following definitions shall apply:

3.1 aqueous extracts: The aqueous extract of fruits which are subjected to losses necessarily occurring during manufacture, containing all the water-soluble constituents of the fruit concerned.

3.2 citrus fruit : Fruit of the Citrus L. family.

3.3 citrus marmalade : The product obtained from a single or a mixture of citrus fruits and processed to a suitable consistency. It may be made from the whole fruit or fruit pieces, which may have all or part of the peel removed, fruit pulp, puree, juice, aqueous extracts and peel and is mixed with a carbohydrate sweetener, with or without the addition of water.

3.4 fruit pulp : The edible part of the whole fruit, if appropriate, less the peel, skin, seeds, pips, etc., which may have been sliced or crushed but which has not been reduced to a purée.

3.5 fruit purée : The edible part of the whole fruit, if appropriate, less the peel, skin, seeds, and pips and alike which has been reduced to a purée by sieving or a similar process.

3.6 jam : The product obtained by processing to a suitable consistency, made from the whole fruit, pieces of fruit, the unconcentrated and/or concentrated fruit pulp or fruit puree, of one or more kinds of fruit, which is mixed with a carbohydrate sweetener and with or without the addition of water.

NOTE *:* *Citrus jam may be obtained from the whole fruit cut into strips and/or sliced.*

3.7 jellies : The product processed to a semi solid gelled consistency and made from the juice and/or aqueous extracts of one or more fruits, mixed with a carbohydrate sweetener, with or without the addition of water.

3.8 jelly marmalade : The product described under citrus marmalade (**3.3**) from which all the insoluble solids have been removed but which may or may not contain a small proportion of thinly cut peel.

3.9 sugar crystallization : Appearance of sugar crystals in the finished product.

3.10 weeping : That give out water after cooling due to synerisis.

4 INGREDIENTS

All ingredients used shall comply with the Food Act No. 26 of 1980 and the regulations framed thereunder.

4.1 Basic ingredients

4.1.1 *"Fruit" ingredient*

All the recognized fruits and vegetables that are used in making jams, including but not limited to those fruits mentioned in this standard, either fresh, frozen, canned, concentrated, dried or otherwise processed and/or preserved which shall be sound, wholesome and clean and of suitable ripeness but free from deterioration and containing all its essential characteristics except that it has been trimmed, sorted and otherwise treated to remove any blemishes, bruises, toppings, tailings, cores, pits (stones) and may or may not be peeled.

In the case of jellies the quantities where appropriate shall be calculated after deduction of the weight of water used in preparing the aqueous extracts.

4.1.1.1 Fruit content

Jams, jellies and marmalades shall be produced such that the quantity of fruit ingredient used as a percentage of finished product shall be not less than 40 per cent by mass, with the exception of the following fruits:

- 35 per cent by mass for pineapple, rambutan, red currents and strawberry;
- 30 per cent by mass for black currents, soursop, orange and cranberry;
- 25 per cent by mass for banana, ginger, guava, jackfruit and sapota;
- 23 per cent by mass for cashew apple;
- 20 per cent by mass for durian, woodapple, mango and bael fruit (Beli);
- 10 per cent by mass for tamarind; and
- 8 per cent by mass for passion fruit and other strongly flavoured or high acidity fruits.

NOTE *: When two or more fruits are used in combination, the minimum fruit content for different kinds of fruit must be reduced in proportion to the percentages used.*

4.1.2 *Carbohydrate sweeteners*

4.1.2.1 Sugars
White sugar, see **SLS 191**
Brown sugar, see **SLS 883**
Sugars extracted from fruit (fruit sugars)

4.1.2.2 Syrups - liquid glucose, invert sugar syrup, fructose syrup, liquid cane sugar, isoglucose, high fructose syrup, honey, see **SLS 464** and treacle, see **SLS 772**.

4.2 Optional ingredients

In addition to the ingredients given in **4.1**, one or more of the following may be used.

4.2.1 *Acidifying agents*
Citric acid, tartaric acid, malic acid, fumaric acid, lactic acid and/or their sodium, potassium or calcium salts.
Tartaric acid, if used, shall not exceed 3000 mg/kg.

4.2.2 *Ascorbic acid*

4.2.3 *Preservatives* (see **5.6**)
Sulfites
Sorbates

4.2.4 *Colouring substances*
Permitted only for Guava and Flavoured melon products.

4.2.5 *Flavouring substances*
Natural flavouring substances that are extracted from the named fruits in the respective product. Artificial flavours or nature identical flavours permitted only for flavoured melon products.

4.2.6 *Pectin*
Pectin derived from any fruit, limited by GMP

4.2.7 *Spices, aromatic herbs, oleoresins and essential oils*

5 REQUIREMENTS

5.1 Hygiene

The product shall be processed, packaged, stored, transported and distributed in accordance with the conditions prescribed in **SLS 143** and **SLS 209.**

5.2 General requirements

5.2.1 *Jams*

The finished product shall be of an appropriate gelled consistency. It shall have colour and flavour appropriate to the type or kind of fruit ingredient used and shall be free from burnt or objectionable flavours, weeping, crystallization, mould growth and shall show no sign of fermentation. (see **4.2.4** and **4.2.5**)

5.2.2 *Jellies and Marmalades*

Fruit jellies shall be of gelatinous consistency. It shall be clear, sparkling, transparent of an appropriate colour, normal to the type of fruit ingredient used. It shall not be syrupy, sticky or gummy and shall retain the flavour or aroma of original fruit. The product shall be free from burnt or objectionable flavours, weeping, and crystallization. Marmalades shall have a uniform suspension of peel. (see **4.2.4** and **4.2.5**)

5.3 Defects

The products shall be free of defects normally associated with fruit ingredient such as plant material skins (if peeled), stems and pieces of stones and mineral matters. In the case of berry fruits, dragon fruit and passion fruit, seeds shall be considered as a natural fruit component and not a defect unless the product is presented as “seedless”.

5.4 Soluble solids

The soluble solids content for finished products shall be not less than 65 per cent by mass, when tested according to the method prescribed in Appendix **B**.

5.5 Fill of container (Minimum fill)

The container shall be well filled with the product which shall occupy not less than 90 per cent of the water capacity of the container when tested in accordance with the method prescribed in Appendix **C**. The water capacity of the container is the volume of distilled water at 27 ^{o}C which the sealed container will hold when completely filled.

5.6 Preservatives

The product shall not exceed the limits for preservatives given in Table **1**, when tested according to the methods prescribed in Column **4** of the Table.

TABLE 1 – Limits for Preservatives

Sl. No. (1)	**Preservative** (2)	**Limit** (3)	**Method of test** (4)
i)	Sulphur dioxide content, mg/kg, (max.) * ‡	50	Appendix D
ii)	Sorbic acid content, mg/kg, (max.)*	500	Appendix E

NOTES : ** When combinations of above preservatives are present, the quantity of each preservative, expressed as a percentage of the maximum permitted limit of that preservative, shall be calculated. The sum of these percentages shall not exceed 100.*

‡ *Canned products shall not contain sulphur dioxide.*

5.7 Microbiological requirements

The product shall conform to the microbiological requirements given in Table **2,** when tested according to the method prescribed in Column **4** of the Table.

TABLE 2 – Microbiological requirements

Sl. No. (1)	**Test** (2)	**Limit** (3)	**Method of test** (4)
i)	Howard mould count, per cent of fields containing mould filaments, (max.)	40	Appendix F

5.8 Contaminants

5.8.1 *Pesticide residues*

The product shall be prepared with special care under Good Manufacturing Practices, so that residues of those pesticides which may be required in the production, storage or processing of the raw materials or the finished food ingredient do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

5.8.2 *Heavy Metals*

The product shall not exceed the limits for heavy metals given in Table **3,** when tested according to the methods prescribed in Column **4** of the Table.

TABLE 3 - Limits for heavy metals

Sl. No. **(1)**	**Heavy metal** **(2)**	**Limit** **(3)**	**Method of test** **(4)**
i)	Arsenic (as As), mg/kg, (max.)	1.0	Appendix G
ii)	Cadmium (as Cd), mg/kg, (max.)	0.1	
iii)	Lead (as Pb), mg/kg, (max.)	1.0	
iv)	Tin (as Sn), mg/kg, (max.)	40*	

***** *For canned products (max.) 250 mg/kg*

6 PACKAGING

6.1 The product shall be packaged either in glass bottles or in hermetically sealed, open top sanitary cans made from tinplates which are inside lacquered or in food grade plastic containers or aseptic packages under strict hygienic conditions and the containers shall be sealed air-tight.

6.2 The containers shall be capable of withstanding the temperatures involved in processing.

6.3 The packaging material which comes into contact directly with the product shall be sufficiently inert to preclude substances from being transferred to food in quantities large enough to endanger human health or to bring about an unacceptable change in the composition of the product or deterioration in its organoleptic properties.

7 MARKING AND/OR LABELLING

7.1 The following shall be marked or labelled legibly and indelibly on each container destined for the final consumer.

a) The name of the product as “X-jam/jelly/marmalade”, (where X – denotes the fruit base used), shall apply to products which are not artificially flavoured.

The term “Y-Flavoured X-Jam” (where X- denotes the fruit base used and Y- denotes the type of flavour used), shall be applied to jams which have been flavoured (other than with natural flavouring substances) to impart to the jam, the distinctive flavour of the added flavouring ingredient.

In the case of products manufactured from two or more fruits, the product name shall include the names of the fruit ingredient comprising the mixture in descending order of proportion by mass (m/m) or the words “Mixed Fruit Jam/Jelly”.

b) Brand name or trade mark, if any;
c) Net mass, in ‘g’ or ‘kg’;
d) Any permitted food additive’s name or class and INS number;
e) Instructions for storage and use, if any;
f) Name and address of the manufacturer and packer/distributor in Sri Lanka;
g) Batch number or code number or a decipherable code marking;
h) Date of manufacture;
j) Date of expiry;
k) Complete list of ingredients, in descending order of their proportions; and
m) Country of origin, in case of imported products;

7.2 The marking and labelling shall also be in accordance with **SLS 467**.

8 SAMPLING

Representative samples of the product for ascertaining conformity to the requirements of this standard shall be drawn as prescribed in Appendix **A.**

9 METHODS OF TEST

Tests shall be carried out as prescribed in **Parts 2, 3, 5, 6, 7, 8, 9** and **10** of **SLS 1332** and Appendices **B** to **G** of this standard**.**

10 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied.

10.1 Each container examined as in **A.4.1**. satisfies the packaging and marking requirements.

10.2 Each container tested as in **A.4.2** satisfies the microbiological requirements given in **5.7**.

10.3 Each container tested as in **A.4.3** satisfies the requirements given in **5.2**, **5.3**, and **5.5**.

10.4 The composite sample tested as in **A.4.4** satisfies the requirements given in **5.4**, **5.6** and **5.8.2**.

APPENDIX A
SAMPLING

A.1 LOT

In any consignment all the containers of the same size filled with the product belonging to one batch of manufacture or supply shall constitute a lot.

A.2. GENERAL REQUIREMENTS OF SAMPLING

In drawing, preparing, storing and handling samples, following precautions and directions shall be taken:

A.2.1 Samples shall be drawn in a protected place not exposed to damp air, dust or soot.

A.2.2 The sampling instruments shall be clean and dry when used. When drawing samples for microbiological examination, the sampling instruments shall be sterilized.

A.2.3 The samples shall be protected against adventitious contamination.

A.2.4 The samples shall be placed in clean and dry containers. The size of the sample containers shall be of such that they are almost completely filled by the sample. When drawing samples for microbiological examination, the sample containers shall be sterilized.

A.2.5 The sample containers shall be sealed air-tight after filling and marked with necessary details of sampling.

A.2.6 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the room temperature.

A.3 SCALE OF SAMPLING

A.3.1 Samples shall be examined from each lot for ascertaining its conformity to the requirements of this specification.

A.3.2 The number of containers to be selected from a lot shall be in accordance with Table **4**. A sub sample as given in Column **3** of the Table shall be selected for microbiological tests from the sample selected as in Column **2** of the Table.

TABLE 4 – Scale of sampling

No. of containers in the lot (1)	No. of containers to be selected (2)	Size of the sub-sample for microbiological requirement (3)
Up to 150	05	02
151 to 500	07	03
501 to 1 200	10	04
1 201 to 3 201	12	05
3 201 and above	15	06

NOTE : *If modification is desirable, the laboratory should be consulted regarding the selection of samples.*

A.3.3 If the containers are packed in packing cases 10 per cent of the cases subject to a minimum of 5 cases shall be selected from the lot. As far as possible an equal number of containers shall be selected from each case so as to form the sample of size given in Column **2** of Table **4**.

A.3.4 Containers and cases shall be selected at random. In order to ensure randomness of selection, tables of random numbers as given in **SLS 428** shall be used.

A.3.5 Reference sample

If a reference sample is required, the number of containers to be selected from a lot shall be three times the number given in Column **2** of Table **4**. The containers so selected shall be divided into three equal parts. One of these parts shall be marked for the purchaser, one for the supplier and the third for referee.

NOTE : *In case of microbiological requirements, a reference sample is not required.*

A.4 NUMBER OF TESTS

A.4.1 Each container selected as in **A.3.2** or **A.3.3** shall be examined for packaging and marking requirements.

A.4.2 A sub-sample of size as given in Column **3** of Table **4** shall be selected at random from the containers selected as in **A.3.2** or **A.3.3** and tested for microbiological requirements given in **5.7**.

A.4.3 The contents of each of the remaining containers selected as in **A.3.2** or **A.3.3** shall be individually tested for the requirements given in **5.2, 5.3,** and **5.5.**

A.4.4 After testing for requirements as stated in **A.4.3** equal quantities of material shall be taken from each container and mixed together to form a composite sample. The composite sample thus obtained shall be tested for the requirements given in **5.4**, **5.6** and **5.8.2**.

NOTE : *Test for pesticide residues given in 5.8.1 may not be necessary for routine analysis. This shall be carried out only if requested.*

APPENDIX B
DETERMINATION OF SOLUBLE SOLIDS CONTENT

Determination of soluble solids content shall be carried out according to the method described in **SLS 1332 : Part 2** (Methods of test for Fruits and vegetable products – Determination of Soluble solids - Refractometric method).

APPENDIX C
DETERMINATION OF WATER CAPACITY OF CONTAINERS

C.1 METAL CONTAINERS

C.1.1 Procedure

C.1.1.1 Select a container which is undamaged in all respects. Cut out the lid without removing or altering the height of the double seam. Determine the average vertical distance from the top of the container to the top level of the contents by taking measurements over the surface of the contents. This distance is the gross head space in containers with double seams, in which case,

The net head space = Gross head space - 4.8 mm

C.1.1.2 Empty the contents of the container so examined. Wash, dry and weigh the empty container (m_1). Fill the container with distilled water at 27°C up to 4.8 mm vertical distance below the top level of the container and weigh the container thus filled (m_2). The water capacity of the container, expressed in millilitres of water shall be the difference between the two weighings ($m_2 - m_1$).

C.1.1.3 Draw off the water from this filled container to the level of the contents as determined in C.1.1.1. Determine the mass of the container with the remaining water (m_3).

C.1.1.4 Calculation

$$\textit{Fill of the container, as per cent of the water capacity of the container} = \frac{m_3 - m_1 \times 100}{m_2 - m_1}$$

where,

m_1 is the mass, in g, of the empty container;

m_2 is the mass, in g, of the container filled with water (C.1.1.2), and

m_3 is the mass, in g, of the container with remaining water (C.1.1.3)

C.2 GLASS CONTAINERS

C.2.1 Procedure

C.2.1.1 Select a container which is undamaged in all respects and remove the lid. Determine the average vertical distance from the top level of the container to the top level of the contents. This distance is the net headspace in vacuum sealed jars.

C.2.1.2 Empty the container, dry and weigh the empty container ($m_{1)}$. Fill the container with distilled water at 27^{o}C to the level of the top and weigh the container thus filled (m_2). The water capacity of the container, expressed in millilitres of water shall be the difference between the two weighings (m_2- m_1).

C.2.1.3 Proceed as in C.1.1.3 and calculate the fill of the container as in C.1.1.4

APPENDIX D
DETERMINATION OF SULPHUR DIOXIDE CONTENT

Determination of sulphur dioxide content shall be carried out according to the method described in **SLS 1332: Part 5** (Methods of test for fruits and vegetables products – Determination of total sulphur dioxide content) or **SLS 1332 : Part 6** (Methods of test for fruits and vegetable products – Determination of sulphur dioxide content – Routine method) or AOAC method 962.16.

APPENDIX E
DETERMINATION OF SORBIC ACID CONTENTS

Determination of sorbic acid contents shall be carried out according to the method described in **SLS 1332 : Part 3** (Methods of test for fruits and vegetable products – Determination of benzoic acid and sorbic acid concentrations – High-performance liquid chromatography method) or AOAC methods 960.38 and 983.16.

APPENDIX F
DETERMINATION OF HOWARD MOULD COUNT

F.1 PRINCIPLE

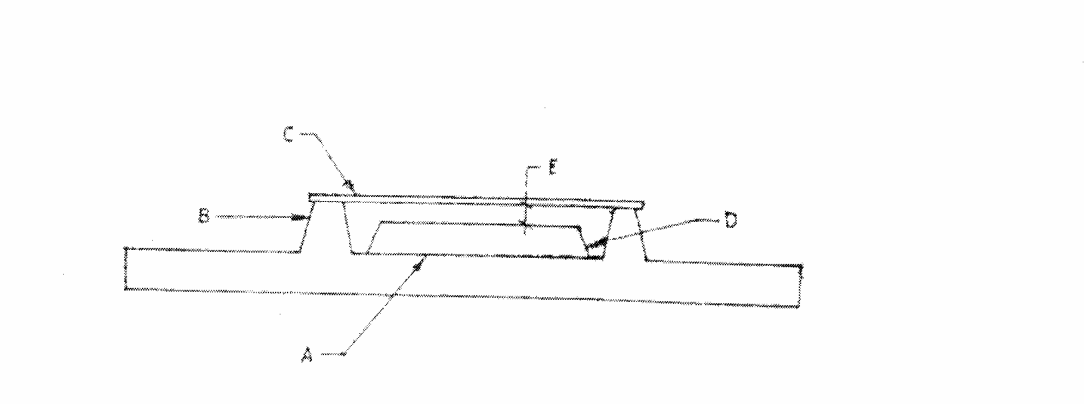
This method consists of a count of microscope fields containing fungus filaments in a standardized counting chamber.

F.2 REAGENTS

F.2.1 *Stabilizer solution, sodium carboxy methyl cellulose,* 0.5 per cent (m/m). Place 500 ml boiling water in high speed blender and add 2.5 g cellulose gum and 10 ml formaldehyde and blend for one minute.

F.3 APPARATUS

F.3.1 Howard mould counting slide as shown in Figure **1**.



A is the flat plane circle of 19 mm in diameter or rectangle of 20 mm x 15 mm;
B is the shoulder ;
C is the cover glass ;
D is the moat ; and
E is the clearance of 0.1 mm.

Figure 1 - Howard mould counting slide

F.4 PROCEDURE

F.4.1 *Preparation of sample*

Place 50 ml of stabilizer solution (F.2.1) in a 100 ml graduated cylinder. Add 50 ml of well mixed sample by displacement and mix thoroughly.

F.4.2 *Preparation of Howard mould count cell*

F.4.2.1 Clean the Howard slide and cover glass so that Newton's Rings are produced between each shoulder and cover glass, when cover glass is placed in position. If Newton's Rings are not formed, rewash slide and cover glass. Remove the cover glass and with a knife blade or scalpel, place a portion of well mixed sample on the center of the disc. Hold the cover glass parallel to the surface of the central disc and lower it slowly until it just touches the sample portion. While maintaining contact with the sample, the cover glass is lowered rapidly but gently until it just touches the shoulder of the slide, so that the sample spread evenly on the entire surface of the disc. Use only enough samples to reach the edge of the disc.

F.4.2.2 (An alternate technique is to place the sample portion on the central disc halfway between the center of the disc and the edge. Rest the edge of the cover glass in a slanting position on the edges of the cell shoulders nearest the portion of the test material. Lower the cover glass slightly until it almost touches the test material, and then lower it rapidly but gently into place so that the material spreads evenly over the entire surface of the disc.)

Discard any mount showing uneven distribution of sample, absence of Newton's Rings, numerous air bubbles or any liquid which has been drawn across the moat and between the cover glass and shoulder.

F.4.3 Microscopic examination

F.4.3.1 Place the slide under the microscope and examine with such adjustment that each field of view covers 1.5 mm^2 (this area which is essential may be obtained by adjusting the draw tube of the microscope so that the diameter of field is 1.382 mm). When such adjustment is not possible, use an accessory occular disc for mould counting with the aperture accurately cut to necessary size. The diameter of the field of the view can be measured by using a stage micrometer. When the instrument is properly adjusted, the quantity of the liquid examined per field of view is 0.15 mm^3. Use a magnification of 90x to 125x. Use higher magnification (180x to 250x) only for conformation of mould.

F.4.3.2 From each of 2 or more mounts examine 25 or more fields (for absence or presence of moulds) taken in such a manner as to be representative of all sections of the mount. To accomplish this, examine alternate fields horizontally across the slide preparation until 5 fields have been examined. Then move the mechanical stage vertically to the next alternate row and examine 5 more alternate fields in reverse horizontal direction. Repeat this process until 25 fields have been examined. Never move the slide purposely to exclude or include mould filaments.

F.4.3.3 Observe each field, noting presence or absence of mould filaments. Record field as positive when the aggregate length of < 3 of the longest filaments present exceeds 1/6 the diameter of field.

F.5 CALCULATION

F.5.1 Calculate the proportion of positive fields from the results of examination of all observe fields.

$$\textit{Per cent of positive fields} = \frac{\textit{Number of positive fields}}{\textit{Number of fields examined}} \times 100$$

F.5.2 Report results as a percentage of fields containing mould filaments.

APPENDIX G
DETERMINATION OF HEAVY METALS

Determination of heavy metals shall be carried out according to the methods given in **Parts 7, 8, 9** and **10** of **SLS 1332** or the Official Methods of Analysis of the AOAC (Association of Official Analytical Chemist), 18th edition, and 2007, as given in Table **5**.

TABLE 5 – Methods for analysis of heavy metals

Sl. No. (1)	Heavy metal (2)	Method of analysis (3)
i)	Arsenic	SLS 1332 : Part 9 or AOAC 986.15
ii)	Cadmium	SLS 1332 : Part 7 or AOAC 999.11
iii)	Lead	SLS 1332 : Part 8 or AOAC 999.11
iv)	Tin	SLS 1332 : Part 10 or AOAC 999.11

AMENDMENT NO: 01 APPROVED ON 2016-03-23 TO SLS 265: 2011

SPECIFICATION FOR JAMS, JELLIES AND MARMALADES (SECOND REVISION)

EXPLANATORY NOTE

This amendment is issued after the decision taken by the working group on processed fruits and vegetables, in order to include a new category as “Fruit spreads” for the products which have total soluble solid content above 60 percent by mass.

AMENDMENT NO 01 APPROVED ON 2016-03-23 TO SLS 265 : 2011

SRI LANKA STANDARD SPECIFICATION FOR JAMS, JELLIES AND MARMALADES (SECOND REVISION)

Page 3

Clause 1.1 Line 2

Replace the word "and" by a comma after the word "jellies". Insert "and fruit spreads,".

Clause 1.1 Line 3

Replace the word "repacking" by the word "repackaging".

Page 5

After Clause 3.5

Insert **"3.6 fruit spread**: The product obtained by processing to a suitable consistency, made from the whole fruit, pieces of fruit, the unconcentrated and/or concentrated fruit pulp or fruit puree, of one or more kinds of fruit, which is mixed with a carbohydrate sweetener and with or without the addition of water. The total soluble solids shall not be less than 60 per cent by mass.

Delete from Clause 3.6 to 3.10 and insert

"**3.7 jam**: The product obtained by processing to a suitable consistency, made from the whole fruit, pieces of fruit, the unconcentrated and/or concentrated fruit pulp or fruit puree, of one or more kinds of fruit, which is mixed with a carbohydrate sweetener and with or without the addition of water. The total soluble solids shall not be less than 65 per cent by mass.

*NOTE **:** Citrus jam may be obtained from the whole fruit cut into strips and/or sliced.*

3.8 jellies: The product processed to a semi solid gelled consistency and made from the juice and/or aqueous extracts of one or more fruits, mixed with a carbohydrate sweetener, with or without the addition of water.

3.9 jelly marmalade: The product described under citrus marmalade (**3.3**) from which all the insoluble solids have been removed but which may or may not contain a small proportion of thinly cut peel.

3.10 sugar crystallization: Appearance of sugar crystals in the finished product.

3.11 weeping: That give out water after cooling due to synerisis."

Clause 4.1.1 Line 1

Include "jellies, marmalades and fruit spreads" after the word "jams,".

Page 6

Clause 4.1.1.1 Line 1
Replace the word “and” by a comma after the word “jellies”. Include “and fruit spreads” after the word “marmalades”.

Page 7
Clause 5.2.1
Insert “and Fruit Spreads” after the word “Jams”.

Page 8
Clause 5.4 Line 1
Include “jams, jellies, marmalades” before the word “shall”.

Clause 5.4 Line 2
Include “and for fruit spreads not less than 60 per cent by mass,” before the word “when”.

Page 9
Clause 7.1

a) Include “/fruit spread” after the word “marmalade”.
e) Insert “and “Refrigerate after opening” in the case of fruit spreads;” after the words “if any”.

Amendment No: 2 Approved on 2017-07-21 to SLS 265: 2011

AMENDMENT NO: 2 TO SLS 265: 2011
SRI LANKA STANDARD SPECIFICATION FOR JAMS, JELLIES AND MARMALADES (SECOND REVISION)

EXPLANATORY NOTE

This amendment is issued after a decision taken by the Working group on Processed Fruits and Vegetables in order to insert new definitions, to remove the term "Carbohydrate sweeteners" from basic ingredients and to include the INS numbers of the food additives given under optional ingredients and amend their limits as per CODEX General Standard on Food Additives (GSFA) and to amend the labelling clause to align with the regulations published under Sri Lanka Food Act.

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Page 3
Foreword, Paragraph 5, Line 2
Delete the words "wherever applicable".

Page 5
Clause **3**
Insert new clauses as follows after the clause **3.6**.
"**3.7 sweetener:** Any food additive that is used or intended to be used to impart a sweet taste or as a tabletop sweetener, and does not include carbohydrate sugars

3.8 energy reduced: Food to which it refers has an energy value reduced by at least thirty per cent as compared with the original or a similar preparation"

Page 6
Clause **4.1.2**
Delete the words "*Carbohydrate sweeteners*" and insert "*Sugars, sweeteners and syrups"*
Change the clause **4.1.2.2** as clause **4.1.2.3**
Insert the following in between clause **4.1.2.1** and clause **4.1.2.3** as clause **4.1.2.2**.
"**4.1.2.2** Sweeteners
4.1.2.2.1 Only for products which are identified as "energy reduced" or with "no added sugar".

Sorbitol	INS 420	Limited by GMP"
Mannitol	INS 421	
Isomalt	INS 953	
Maltitol	INS 965	
Lactitol	INS 966	
Xylitol	INS 967	
Erythritol	INS 968	

4.1.2.2.2 Only for products which are identified as "energy reduced"

Neotame	INS 961 (32 mg/ kg, max)
Acesulfame K	INS 950 (1000 mg/ kg, max)
Aspartame	INS 951 (1000 mg/ kg, max)
Sucralose	INS 955 (400 mg/ kg, max)
Steviol glycoside	INS 960 (200 mg/ kg, max as Steviol equivalents)

AMD 495

Insert the word "AND/ OR" between clauses **4.1.2.1** and **4.1.2.2**.

Clause **4.2.1**
Delete the clause **4.2.1** and insert the following.
"**4.2.1** *Acidity regulators*

Citric acid	INS 330	Limited by GMP"
Potassium dihydrogen citrate	INS 332 (i)	
Sodium dihydrogen citrate	INS 331 (i)	
Malic acid DL	INS 296	
Calcium malate	INS 352 (ii)	
Sodium hydrogen DL malate	INS 350 (i)	
Fumaric acid	INS 297	
Sodium fumarate	INS 365	
Lactic acid	INS 270	
Calcium lactate	INS 327	
Sodium lactate	INS 325	
Potassium lactate	INS 326	

Clause **4.2.2**
Delete the clause **4.2.2** and substitute by following.
"**4.2.2**

Ascorbic acid	INS 300	Limited by GMP"
Sodium ascorbate	INS 301	
Calcium ascorbate	INS 302	

Page 7
Clause **4.2.6**
Insert "INS 440" after the word "*Pectin"*

Page 9
Clause **7.1**
Insert a new line after the item "m" as follows (page no 10).
"n) The product containing sweeteners shall be declared as "NO ADDED SUGAR X-JAM/ JELLY/ MARMALADE" or "ENERGY REDUCED X-JAM/ JELLY/ MARMALADE" as appropriate and carry a statement "NOT RECOMMENDED FOR CHILDREN UNDER 3 YEARS OF AGE".

AMENDMENT NO: 3 TO SLS 265: 2011

SRI LANKA STANDARD SPECIFICATION FOR JAMS, JELLIES AND MARMALADES
(Second Revision)

EXPLANATORY NOTE

This amendment is issued after a decision taken by the Working group on Processed Fruits and Vegetables in order to be in line with Food (Preservatives) Regulation, 2019 under the Food Act 26 of 1980.

AMD 572

Amendment No: 3 Approved on 2022-07-07 to SLS 265: 2011

SRI LANKA STANDARD SPECIFICATION FOR JAMS, JELLIES AND MARMALADES
(*Second Revision*)

Page 6
Clause 4.2.3
Insert "Propionates" below "Sorbates"

Page 8
TABLE 1
Replace Table 1 using the following table.

Sl No (1)	**Preservatives** (2)	**Limit** (3)	**Method of test** (4)
i)	Sulphites (as residual SO_2), mg/ kg, max.	100	Appendix D
ii)	Sorbates, mg/ kg, max.	300	Appendix E
iii)	Propionates, mg/ kg, max.	GMP	--

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Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

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