

SECRETARIAT
OF
THE TECHNICAL STANDARDISATION COMMITTEE (FOOD STUFFS)
(DIRECTORATE GENERAL OF SUPPLIES AND TRANSPORT)

DEFENCE FOOD SPECIFICATIONS-2013

SPECIFICATION NO 29 : PROCESSED CHEESE

Quality

1. Processed Cheese shall be made by comminuting and mixing into a homogeneous plastic mass with the aid of heat, one or more types of hard cheeses conforming to Bureau of Indian Standard Specification No IS: 2785-1979, with one or more of the permissible emulsifiers. The total weight of the solids of emulsifiers used shall not exceed 4.0% by weight of processed cheese.
2. The Processed Cheese shall be of good texture and uniform consistency, free from vacuoles filled with water, uniform colour and not having different colour in individual cans. All ingredients used shall be clean and in every way fit for human consumption. No colouring matter other than annatto colour or carotene shall be added.
3. The Processed Cheese shall be clean and sound, free from dirt, insect and rodent contamination and shall have a pleasant odour and characteristic flavour. It shall be free from any adulterant and preservative except sorbic acid, its sodium, potassium or calcium salt or nisin which shall not exceed 0.1% of weight of cheese.

Packing

4. (a) **Cans.** The Processed Cheese to be packed in properly cleaned internally lacquered cans conforming to BIS Specification No IS : 2034-1987 with or without ISI Certification mark and hermetically sealed by double seaming operation, with Round easy open covers of ring pull type (RPT). The nett weight of cheese in each can shall not be less than 400 gm. A plastic top lid of suitable size shall be provided on each can. The AT No and date to be printed by inkjet printing along the circumference of the can on the lower lid.

OR

- (b) **Cubes.** The processed Cheese shall be in the form of cubes of 25 gm. The cubes will be packed individually in food grade aluminium foil (primary packing) of 12 micron thickness. The cubes will be further packed in cartons of 200 gm, 500 gm and 1 Kg as per details given in appendix 'A' to this specification.

OR

- (c) **Slices.** The processed Cheese shall be in the form of slices of 10 gm. The slices would be individually packed in coextruded inner wrap film (primary packing). Type of co extrusion used will be (polystyrene-polystyrene-poly vinylidene chloride-polyethylene). The slice will be further packed in outer wrap (secondary packing) as per details given in appendix 'B' to this specification.

(d) **Corrugated Fibreboard Cartons (CFCs)**. The Cans shall be further packed in CFCs conforming to Specification No 201 and Appendix 'F' thereto. Each CFC shall contain 36 cans i.e. (3x3)⁴.

Marking

5. Each can shall be externally lithographed and shall be marked with the following particulars depicting the product in attractive multicoloured decorative design with serving suggestions if any:-

- (a) Description of contents i.e. Processed Cheese.
- (b) Name of manufacturer.
- (c) Brand (if any).
- (d) Nett weight of contents (In gram).
- (e) Serving suggestions (if any).
- (f) List of ingredients used in descending order of wt or volume.
- (g) Nutritional information per 100 gm / 100 ml / per serving as indicated in the para for mandatory requirements of FSSAI/BIS.
- (h) Date of manufacture.
- (j) Batch No / Lot No.
- (k) AT No and date.
- (l) For Defence Services only.

Note - For Ser No (f) to (l) the particulars may be printed legibly on self adhesive heavy duty stickers and the same be pasted on the cans.

6. **Code Printing.** In the centre of the bottom plate of each can, code symbols with letters for name of firm, name of commodity, date, month and year of manufacture in two lines one above the other shall be printed with indelible food grade ink. The detailed format of the code would be:-

- (a) **Upper Line.** Name of the firm represented by 2 alphabets to be allotted by the Director General of Supplies and Transport (ST-8) followed by name of commodity represented by 2 additional alphabets. The code symbol for Processed Cheese shall be 'CS'.
- (b) **Lower Line.** This line will depict the date, month and year of manufacture and will carry a maximum of 4 symbols. The date will be shown in full (digits 1 to 9 shall be prefixed with a zero). The month will be represented by an alphabet (A or M for January, B or N for February, C or O for March, D or P for April, E or Q for May, F or R for June, G or S for Jul, H or T for August, I or U for September, J or V for October, K or W for November and L or X for December) and the year will be indicated by the last numeral of the year (9 for 1999, 0 for 2000, 1 for 2001 and so on).

7. **Corrugated Fibreboard Cartons (CFCs).** The following particulars shall be printed on the sides of each CFC:-

- (a) Description of contents size(5.0 cm characters or suitable size or as per The Legal Metrology (Packaged Commodities) Acts, 2009 and Rules, 2011.
- (b) Name of manufacturer.
- (c) Date of manufacture.
- (d) Gross weight (in kg).
- (e) No of Cans x Nett weight (in gm).
- (f) Batch No/Lot No.
- (g) Warranty expiry date.
- (h) AT No and date.
- (j) Code symbol.
- (k) FOR DEFENCE SERVICES ONLY.

Warranty

8. In accordance with the standard warranty clause Appendix 'J', the warranty period shall be nine months.

Hygiene

9. The Processed Cheese shall be prepared in premises maintained in a hygienic condition which shall be open to inspection at any time by a competent authority approved by the Quartermaster General and the Director General of Medical Services (Army).

10. The basic hygienic requirements in a factory producing Processed Cheese shall be in accordance with Appendix 'H'.

Inspection

11. An inspection shall be carried out by the Director General of Supplies and Transport or an officer acting on his behalf on all supplies tendered for acceptance. The decision of this officer shall be final.

12. The Processed Cheese shall conform to the following analysis in a cut out examination:-

- | | | |
|------|----------------------------------------------------------------------|----------------------------------------|
| (a) | Moisture | - Not more than 47.0% |
| (b) | Milk fat (on dry basis) | - Not less than 40.0%. |
| (c) | Salt (added NaCl) | - Not more than 3.0 %(by weight). |
| (d) | The amount of heavy metals shall not exceed the limits given below:- | |
| (i) | Lead | - Not more than 2.5 parts per million. |
| (ii) | Copper | - Not more than 30 parts per million. |

- | | | |
|-------|---------|----------------------------------------|
| (iii) | Tin | - Not more than 250 parts per million. |
| (iv) | Arsenic | - Not more than 1.0 part per million. |
| (v) | Zinc | - Not more than 50 parts per million. |

Microbiological Examination

| | | <u>m (limit)</u> | <u>M (limit)</u> | |
|-----|------------------------|------------------|------------------|-----------------|
| (e) | Total Plate Count | - | 50,000/gm | 75,000/gm |
| (f) | Coliform Count | - | -- | Less than 10/g |
| (g) | E.coli | - | -- | Absent per gm |
| (h) | Salmonella | - | -- | Absent per 25gm |
| (j) | Shigella | - | -- | Absent per 25gm |
| (k) | Staphylococcus aureus | - | -- | Less than 10/gm |
| (l) | Yeast and Mould count | - | -- | Less than 10/gm |
| (m) | Anaerobic Spore count | - | -- | 100/g |
| (n) | Listeria monocytogenes | - | -- | Absent in 1 gm |

Note.

1. Eight samples will be used for Microbiological test.
2. Max two samples can exceed limit of m, but will be less than limit of M.
3. No sample can exceed limit of M.
4. Lots will be rejected if either of note 2 and 3 are exceeded.
5. Refer Appx 'B', table 01 to 04 and Sampling Guidelines of Food Safety and Standards Regulations, 2011".

13. The methods of analysis shall be those as laid down in Bureau of Indian Standards Specification No IS: 2785-1979.

Mandatory Requirements Of FSSAI/BIS

14. All mandatory requirements of FSSAI/BIS, as amended from time to time, pertaining to the above Specification including marking of BIS certification mark for container/contents, Best Before _____, coloured symbol for declaring vegetarian and non-vegetarian food etc on packs shall be complied with.

15. The list of ingredients, nutritional information per 100 gm / 100 ml / per serving etc, as given in the Govt of India, Office of the ADG (PFA) GSR No 664(E) dt 19 Sep 2008 published in Part II, Section 3, Sub sec (i) of Gazette of India, Extra Ordinary, amended vide corrigendum GSR 135 (E) dt 27 Feb 2009, issued on 06 Mar 2009, to be complied with.

DEFENCE FOOD SPECIFICATION NO 29 FOR CHEESE CUBES

Pack Type: Cheese Cubes (25 gm each)

Pack Size: 200 gm (8x25gm), 500gm (20x25gm) and 1kg (40x25gm)

Packing Material for packing Cubes (Primary): Food grade Aluminum Foil of 12 micron thickness.

Carton Specification (Secondary): Suitable material of adequate size, strength, material and capacity.

Specification for CFC (Tertiary):CFC of adequate ply, strength and capacity

Markings on Primary, Secondary and Tertiary Packing material will be as per Food Safety and Standards (Packaging and Labelling) Regulations, 2011

Appendix 'B'**DEFENCE FOOD SPECIFICATION NO 29 FOR CHEESE SLICES**

Pack Type: Cheese Slices

Pack size: 100gm (5x20gm), 200gm (10x 20gm), 400gm (20x2gm) and 750gm (50x15gm)

Packing Material for packing Slice (Primary): Food grade coextruded inner warp film of suitable thickness.

Carton Specification (Secondary): Suitable material of adequate size, strength, material and capacity.

Specification for CFC (Tertiary): CFC of adequate ply, strength and capacity

Markings on Primary, Secondary and Tertiary Packing material will be as per Food Safety and Standards (Packaging and Labelling) Regulations, 2011

STANDARD MINIMUM REQUIREMENTS OF HYGIENE IN FOOD FACTORIES

1. To ensure the standard of hygiene in a factory the following minimum requirements shall apply:-

- (a) **Floors.** The floors should be impervious and kept clean all times.
- (b) **Lighting and Ventilation.** Adequate standards of lighting (natural and artificial) in working parts of the factory together with adequate ventilation and sufficient space for and protection from machinery.
- (c) **Fly / Rodent / Pest / Bird Proofing.** Fly / rodent / pest / bird proofing of factory premises to the extent necessary to protect raw material during storage and processing and the manufactured products until it has been packed and the containers sealed.
- (d) **Water-Supply.** An adequate supply of potable water in the factory and drinking water for the employees will be provided which shall be periodically tested and certified as free from injurious bacteria and other substances by a public health laboratory.
- (e) **Disposal of Wastes.** An efficient drainage system must be provided with proper methods of disposal of waste water and other effluents. Provision must exist to eliminate dusts/fumes if any.
- (f) **Conservancy.** A proper conservancy system adequately serviced with approved methods of disposal of human excreta.
- (g) Additional special hygiene precautions are necessary when waste products which are dangerous or likely to create conditions which are dangerous to health are produced at any stage during handling of raw materials or its manufacture.
- (h) **Safety.** Adequate fencing of machinery shall be secured in the case of all types of machinery and its moving parts and the moving machinery shall be kept in a position which provides sufficient safeguard against any accident. Each factory must have first aid box with necessary minimum items.

2. **Workers.**

(a) So far as the health of the employees is concerned, they shall be periodically examined by Medical Officer and it should be ensured that no individual suffering from any communicable disease or any disability likely to result in contamination of the raw materials, implements, equipments or finished products, is employed.

(b) All the employees should be protected against communicable diseases with preventive inoculation / vaccination.

(c) Provisions for personal hygiene of employees will include potable drinking water, washing facilities (Soap, basin or taps, nail brushes and towels) sanitary annexes and at least two sets of clean clothing for each employee for use only in the factory and Masks / hand gloves, where necessary. There should be a separate room for keeping the personal belongings and to change the clothes and for drying of wet clothes.

STANDARD WARRANTY CLAUSE

1. The contractor warrants the supplies delivered to be sound, wholesome, and fit for human consumption for a specified number of months from the last day of the month of manufacture, in any climate and under all conditions of storage and movement in India.
2. In the event of the supplies or a part thereof having been declared during the period of warranty as being unfit for human consumption by the Director General of Supplies and Transport, or any officer acting on his behalf, (whose opinion as to whether or NOT the particular consignment is fit for human consumption will be final), the purchaser will have the right to dispose of the condemned stock in any way he considers necessary after giving due notice to the contractor and also, at his discretion, either to allow the contractor to replace the condemned stock within a specified period, or to recover from the contractor the contract price thereof together with all incidental and freight charges incurred from the place of delivery to the place where the supplies were ultimately condemned. The opinion of the Chief Director of Purchase, or an officer acting on his behalf, in regard to these charges will be final.
3. The declaration by the Chief Director of Purchase, or an officer acting on his behalf, communicated to the contractor in writing that a particular consignment has been condemned will be taken by the Contractor as the conclusive evidence of the proper condemnation of that consignment.