

**KENYA STANDARD**

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# **Cheese — Specification**

Part 1:

**General**

## **TECHNICAL COMMITTEE REPRESENTATION**

The following organizations were represented on the Technical Committee:

Kenya Dairy Board  
Ministry Of Health — Public Health Department  
Ministry of Agriculture, Livestock and Fisheries — State Department of Livestock  
Government Chemist's Department  
Egerton University — Department of Dairy and Food Science Technology  
Kenya Industrial Research and Development Institute (KIRDI)  
Consumer Information Network  
Sameer Agriculture and Livestock (K) Limited  
New Kenya Cooperative Creameries (NKCC)  
Brookside Dairy Limited  
Eldoville Dairies Limited  
Githunguri Dairy Bio Food Products Limited  
Happy Cow Limited  
Kenya Bureau of Standards — Secretariat

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# **Cheese — Specification**

Part 1:

**General**

PUBLIC REVIEW DRAFT

## **KENYA BUREAU OF STANDARDS (KEBS)**

**Head Office:** P.O. Box 54974, Nairobi-00200, Tel.: (+254 020) 605490, 602350, Fax: (+254 020) 604031  
E-Mail: [info@kebs.org](mailto:info@kebs.org), Web: <http://www.kebs.org>

### **Coast Region**

P.O. Box 99376, Mombasa-80100  
Tel.: (+254 041) 229563, 230939/40  
Fax: (+254 041) 229448

### **Lake Region**

P.O. Box 2949, Kisumu-40100  
Tel.: (+254 057) 23549, 22396  
Fax: (+254 057) 21814

### **Rift Valley Region**

P.O. Box 2138, Nakuru-20100  
Tel.: (+254 051) 210553, 210555

## **Foreword**

This Standard was prepared by the Milk and Milk Products Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

Cheese is a very nutritious food, which consists of high concentration of the constituents of milk, principally fat, casein and soluble salts, together with water in which small amounts of soluble salts, lactose, and albumin from milk is coagulated. The milk is coagulated by means of rennet and/or other protease enzymes.

There are various types of cheese that are produced and marketed worldwide. This standard specifies the general requirements for all types of cheeses produced and marketed in Kenya.

## Cheese — Specification

### Part 1:

## General requirements

### 1 Scope

This Standard specifies the general requirements for cheeses intended for direct consumption and/ or for further processing.

It applies to all products in compliance with the definition of cheese including those varieties of cheese for which individual or group standards have been developed. Subject to the provisions of this standard, standards for cheeses may contain provisions which are more specific than those in this standard and, in such cases, those more specific provisions shall apply to the individual variety or groups of varieties of cheese.

### 2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

KS ISO 707, *Milk and milk products — Guidance on sampling*

KS ISO 1735, *Cheese and processed cheese products — Determination of fat content — Gravimetric method (Reference method)*

KS ISO 1740, *Milk fat products and butter — Determination of fat acidity (Reference method)*

KS ISO 2962, *Cheese and processed cheese products — Determination of total phosphorus content — Molecular absorption spectrometric method*

KS ISO 5534, *Cheese and processed cheese — Determination of the total solids content (Reference method)*

KS ISO 5943, *Cheese and processed cheese products — Determination of chloride content — Potentiometric titration method*

KS CAC/GL 21, *Recommended international code of hygienic practice for foods for infants and children*

KS CAC/GL 23, *Guidelines for use of nutrition claims*

CODEX STAN 208, *Codex Standard for cheese in brine*

KS EAS 38, *Labelling of prepackaged foods*

KS 2194:2009 – *Good Manufacturing practice guide lines and the Dairy industry*

KS ISO 6611, *Milk and milk products — Enumeration of colony-forming units of yeasts and/or moulds — Colony-count technique at 25 degrees C*

KS ISO 14501:2007 *Milk and milk powder - Determination of aflatoxin M content - Clean-up by immunoaffinity chromatography and determination by high-performance liquid chromatography*

*AOAC 942.17, Arsenic in foods Molybdenum blue method*

*AOAC 999.10, Lead, Cadmium, Copper, Iron, and Zinc in foods, Atomic Absorption Spectrophotometry after dry ashing*

AOAC 962.16 Beta-lactam Antibiotics in milk

AOAC 980.21, Aflatoxin M1 in milk and cheese-thin layer chromatographic method

*AOAC 980.21, organochlorine and organophosphorous pesticide residues in milk and milk products*

### **3 Definitions**

For the purposes of this standard, the following definitions shall apply:

#### **3.1**

##### **Cheese**

Is the ripened or unripened soft, semi-hard, hard or extra hard milk product which may be coated, and in which the whey protein/ casein ratio does not exceed that of milk obtained by coagulation and/or processing techniques

#### **3.2**

##### **Coagulating enzyme**

a milk coagulating enzyme is a preparation approved for cheese-making which is not harmful to the health of the consumer, and with the aid of which either singly or in combination with calf/vegetable rennet and/or a suitable lactic acid producing bacteria, cheese can be manufactured which has all the characteristics of the type of cheese concerned

#### **3.3**

##### **Cream cheese**

Shall be cheese made from cream or from skimmed milk to which cream has been added with or without further processing, and

- i) may contain not more than 0.5 % stabilizing agent
- ii) Shall contain not more than 55 % moisture and not less than 65 % milk fat on a dry basis

#### **3.4**

##### **Cured or ripened cheese**

Is cheese which is not ready for consumption shortly after manufacture but which shall be held for such time, at such temperature, and under such other conditions as will result in the necessary biochemical and physical changes characterizing the cheese

#### **3.5**

##### **'Mould cured or mould ripened cheese'/ soft-ripened cheese**

It is a cured cheese in which the curing has been accomplished primarily by the development of characteristic mould growth throughout the interior and/or on the surface of the cheese. The mould helps cheeses such as brie and camembert develop distinctive, soft, velvety growths on the outside known as bloomy rind.

#### **3.6**

##### **Fresh cheese is the uncured or unripened**

Cheese which is ready for consumption shortly after manufacture without going through the process of ripening

**3.7****Soft fresh cheeses**

Are Cheeses in which the milk is usually coagulated with lactic acid instead of rennet and enzymes  
They contain high moisture content

**3.8****Semi-soft cheeses**

Wash rind semi- soft cheeses are cheeses in which the surfaces are treated with special bacteria and then washes with a solution to encourage the growth of bacteria. Washed rind cheese ripen from outside in, while Dry-rind semi-soft cheeses are cured without a surface treatment

**3.9****Blue-veined cheeses**

Are cheeses in which the beneficial mould; *Penicillium Roquefort* is added to milk or curds prior to pressing. Holes are punched through the formed wheels of cheese to allow oxygen to reach the interior, which encourages mould growth

**3.10****Gouda cheeses**

Cheese made from whole milk or part skim milk and starter cultures.  
Flavoured Gouda has spices or herbs added to their curd prior to pressing

**3.11****Cheddar**

Cheese made from heated raw milk, starter cultures and enzymes to create semi-solid mass, which is then cut into slabs and alternately turned and stacked, a process called cheddaring, to drain whey and develop acidity. The slabs are cut, washed, stirred and further drained and pressed into forms. Other optional ingredients, such as colouring, coagulants, enzymes or agents may be added

**3.12****Mozzarella**

It is the cheese in which the Curd is pulled after it is drained and briefly ripened. The cheese is immersed in cold water, washed in brine and dried. Provolone is drawn and twisted, salted, ripened and in some cases smoked

**3.13****Hard cheeses**

Cheese in which the curd is cut into small particles, then heated to higher temperatures than other cheeses, and the curd settles at the bottom of the vat. The pressed curd is either salted in brine solution or dry salted, perforated with needles and dry cured. As the cheese cures it is periodically turned, scraped and rubbed with vegetable oil. Enzymes are added to aid in the development of flavour

**3.14 Types of cheeses categorised by hardness (see Annex C)**

## **4 Essential composition and quality factors**

### **4.1 Compositional requirements**

### **4.2 Raw materials**

Milk and/or products obtained from milk

### **4.3 Permitted ingredients**

- Starter cultures of harmless lactic acid and/or flavour producing bacteria and cultures of other harmless micro-organisms
- Safe and suitable enzymes
- Sodium chloride
- Potable water
- Citric acid
- Vinegar
- Emulsifiers
- Stabilizers
- seasonings

### **4.4 Additions**

**4.4.1** For cheese for which there is an individual or group standard, only those additions permitted in the individual or group standard may be used.

**4.4.2** The following substances may be added, provided that such substances are not intended to take the place of any milk constituent:

**4.4.2.1** Cultures of harmless lactic acid producing bacteria or harmless mould inoculations for mould ripened cheese.

**4.4.2.2** Rennet or other approved coagulating enzymes.

**4.4.2.3** Sodium chloride at good manufacturing practice, complying with KS CODEX STAN 150

**4.4.2.4** Calcium chloride, max. 200 mg/kg of the milk used.

**4.4.2.5** Natural flavouring substances not derived from milk, such as spices, in such quantity that they can be considered as flavouring substances provided that the cheese remains the main constituent and that the addition declared in the designation of the product is in accordance with 8.2.1.1 and 8.2.1.2 (for example, cheese with celery, etc.), unless the presence of spices is a traditional characteristic of the cheese.

The following requirements shall be applicable to all cheeses covered by this standard. However, this classification shall not preclude the designation of more specific requirements in individual cheese standards.

### **4.5 Table 1- Compositional requirements for all the cheeses covered by this standard**



S/N	Cheese classification	Requirements:			
		Milk fat : Designation shall be;	Dry matter content (m/m):		Moisture content, per cent (maximum) ( m/m)
			Depending on the fat in dry matter content, according to the table below		
		Fat in dry matter content (m/m):	Corresponding minimum dry matter content (m/m):		
i)	Extra hard	High fat	>60% (if above or equal to 60 %)	62%	< 51
ii	hard	Full fat	>45 ≤ 60 (if above or equal to 45 % and less than 60 %)	52%	49 - 56
iii)	Semi-hard	Medium fat	>25 ≤ 45% (if above or equal to 10 % and less than 45 %)	48%	54 - 63
iv)	Semi-soft	Low fat	>10 ≤25% (if above or equal to 10 % and less than 25 %)	12%	61 – 69
v)	soft	Skim	≤10 % (if less than 10 %)	<12%	> 67
<b>Test Method</b>		KS ISO 1735 or KS ISO 3433	KS ISO 1735 or KS ISO 3433	KS ISO 5534	KS ISO 5534

## 5. Hygiene Requirements

- 5.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of KS 2194:2009 and other relevant Kenya standards and regulations. The products should comply with any microbiological criteria established in accordance with KS CAC/GL 21

**5.2** The products shall comply with any microbiological criteria established in accordance with Table 2 below.

**Table 2 — Microbiological requirements for all cheese**

<b>S/N</b>	<b>Quality</b>	<b>Requirements</b>	<b>Test method</b>
	<i>Listeria monocytogenes</i> <i>max,</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i>
	<i>Salmonella spp</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i>
	<i>Shigella</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i> <i>KS ISO 21567</i>
	<i>Clostridium botulinum</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i>
	<i>Staphylococcus aureus</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i>
	<i>E.coli</i>	<i>Nil per gram</i>	<i>KS ISO 4833</i>
	<i>Faecal coliforms:, max</i>	<i>Nil per gram</i>	<i>KS ISO 4832</i>
	<i>Non-faecal coliforms, max</i>	<i>10 per gram</i>	<i>KS ISO 4832</i>

**5.3** Fresh cheeses shall also comply with the following microbiological requirements

**Table 3 — Additional microbiological requirements for all fresh cheeses**

<b>S/N</b>	<b>Quality</b>	<b>Requirements</b>	<b>Test method</b>
<i>i</i>	<i>Mould, max</i>	<i>100 per gram</i>	<i>KS ISO 6611</i>
<i>ii</i>	<i>Yeast, max</i>	<i>100 per gram</i>	<i>KS ISO 6611</i>

## **6 Food additives**

Only those food additives listed in Table 1 may be used and only within the limits specified.

### **6.1 Unripened cheeses**

As listed in the Codex Standard for Unripened cheese including fresh cheese.

### **6.2 Cheeses in brine**

As listed in the Codex Standard for Cheeses in Brine (CODEX STAN 208).

### **6.3 Ripened cheeses, including mould ripened cheeses**

Additives not listed below but provided for in Codex individual standards for varieties of ripened cheeses may also be used for similar types of cheese within the limits specified within those standards

**Table 4 — Food additives**

<b>INS No.</b>	<b>Name</b>	<b>Maximum Level</b>
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<b>Colours</b>		
100	Curcumins (for edible cheese rind)	Limited by GMP
101	Riboflavins	Limited by GMP
120	Carmines (for red marbled cheeses only)	Limited by GMP
140	Chlorophylls (for green marbled cheeses only)	Limited by GMP
141	Copper chlorophylls	15 mg/kg
160a(i)	$\beta$ -Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	<b>Annatto extracts</b>	
	- normal coloured	10 mg/kg (on bixin/norbixin basis)
	- orange coloured	25 mg/kg (on bixin/norbixin basis)
	- deep orange coloured	50 mg/kg (on bixin/norbixin basis)
160c	Paprika oleoresins	Limited by GMP
160e	$\beta$ -apo-Carotenal	35 mg/kg
160f	$\beta$ -apo-8'-Carotenoic acid, methyl or ethyl ester	35 mg/kg
162	Beet red	Limited by GMP
171	Titanium dioxide	Limited by GMP
<b>Acidity regulators</b>		
170	Calcium carbonates	Limited by GMP
504	Magnesium carbonates	
575	Glucono delta-lactone	Limited by GMP
<b>Preservatives</b>		
200	Sorbic acid	3000 mg/kg calculated as sorbic acid
201	Sodium sorbate	
202	Potassium sorbate	
203	Calcium sorbate	
234	Nisin	12.5 mg/kg

239	Hexamethylene tetramine (Provolone only)	25 mg/kg, expressed as formaldehyde
251	Sodium nitrate	50 mg/kg, expressed as NaNO <sub>3</sub>
252	Potassium nitrate	
280	Propionic acid	3000 mg/kg, calculated as propionic acid
281	Sodium propionate	
282	Calcium propionate	
1105	Lysozyme	Limited by GMP
	<b>For surface/rind treatment only:</b>	
200	Sorbic acid	1 g/kg singly or in combination, calculated as sorbic acid
202	Potassium sorbate	
203	Calcium sorbate	
235	Pimaricin (natamycin)	2 mg/dm <sup>2</sup> of surface. Not present in a depth of 5 mm
	<b>Miscellaneous additive</b>	
508	Potassium chloride	
	<b>Sliced, cut, shredded or grated cheese</b>	
460	Cellulose	Limited by GMP
551	Silicon dioxide, amorphous	10 g/kg singly or in combination. Silicates calculated as silicon dioxide
552	Calcium silicate	
553	Magnesium silicate	
554	Sodium aluminosilicate	
555	Potassium aluminosilicate	
556	Calcium aluminium silicate	
559	Aluminium silicate	
560	Potassium silicate	
	<b>Preservatives</b>	
200	Sorbic acid	1 g/kg singly or in combination, calculated as sorbic acid
202	Potassium sorbate	
203	Calcium sorbate Natamycin	

## 7 Contaminants

The products covered by this Standard shall comply with the maximum levels of CODEX STAN 193 and the maximum residue limits for pesticides and veterinary drugs established by the Codex Alimentarius Commission (CAC)

### 7.1 Heavy metals

The products covered by this standard shall comply with the maximum limits in Table 5

**Table 4 — Limits for heavy metal contaminants for all cheeses**

SL No	Characteristic	MRL (Max.)	Test method
i).	Arsenic (AS) mg/kg	0.1 ppm	AOAC 942.17
ii).	Lead (PH) mg/kg	0.02 ppm	AOAC 999.10
iii).	Mercury (Hg) mg/kg	1.0 ppm	AOAC 999.10
iv).	Copper (Cu) mg/kg	5.0 ppm	AOAC 999.10
v).	Zinc (Zn) mg/kg	50 ppm	AOAC 999.10
vi).	Tin (Sn)mg/kg	250 ppm	AOAC 999.10
vii).	Cadmium as Cd, mg/kg	1.5 ppm	AOAC 999.10
viii).	Iron	0.5 ppm	AOAC 999.10

### 7.2 Pesticide residues

All cheeses shall have the maximum residue limits in table 6

**Table 6 - maximum pesticide residue Limits for all cheeses**

S/N	Parameter	Requirements	Test method
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<i>i</i>	ORGANOCHLORINE Group	0.01 ppm	KS ISO 3890-1:2009
<i>ii</i>	ORGANOPHOSPHOROUS Group	0.01 ppm	AOAC 960.40

**7.3 Mycotoxin residues**

All cheeses shall not have more than 0.5ppb aflatoxin m<sub>1</sub> content when tested according to KS ISO 14501:2007/ AOAC 980.21, Aflatoxin M1 in milk and cheese-thin layer chromatographic method

**7.4 Antibiotics**

All cheeses shall not have more than 10.0 ppb total antibiotic as (beta lactam) content when tested according to AOAC 962.16 Beta-lactam Antibiotics in milk

**7.5 Veterinary Drugs**

**Table 6- maximum veterinary drug residue Limits for all cheeses**

S/N	Parameter	Requirements/ MRL	Test method
<i>i</i>	Chloramphenicol	ND	AOAC 972.17
<i>ii</i>	Nitrofurans(including metabolites)	ND	AOAC 960.63
	Ronidazole	ND	AOAC 969.56
	Metronidazole	ND	AOAC 991.17
	Fenbendazole	100ppb	AOAC 991.17
	Albendazole	100ppb	AOAC 991.17
	Phenylbutazone	ND	AOAC 991.17

**8 PACKAGING AND LABELLING**

**8.1 Packaging**

All cheese shall be packed in food grade material that ensures product safety and integrity.

**8.2 Labelling**

In addition to the provisions of KS EAS 38, the following specific provisions apply:

**8.2.1 Name of the food**

**8.2.1.1** The name of the food shall be cheese or other names as defined in 3.3 to 3.16. However, the word “cheese” may be omitted in the designation of an individual cheese variety reserved by a standard for individual cheeses, and, in the absence thereof, a variety name specified in the national legislation of the country in which the product is sold, provided that the omission does not create an erroneous impression regarding the character of the food.

**8.2.1.2** The original cheese, or where not possible, the original pack or prepared consumer pack shall be marked with:

- a) the appropriate designation in accordance with the classification of cheese in Annex B;
- b) the minimum fat in dry matter content and/or the fat content expressed as a percentage by mass; and
- c) an indication of the addition of spices or other natural flavouring substances (in the designation of cheese), except in the case of cheeses in which the presence of these substances is a traditional characteristic.

**8.2.1.3** In case the product is not designated with a variety name but with the designation "cheese" alone, the designation may be accompanied by the appropriate descriptive terms in the following table:

Designation according to firmness and ripening characteristics		
According to firmness: Term 1		According to principal ripening: Term 2
MFFB %	Designation	
< 51	Extra hard	Ripened
49-56	Hard	Mould ripened
54-69	Firm/Semi-hard	Unripened/Fresh
> 67	Soft	In Brine
MFFB moisture on a fat-free basis		

MFFB equals percentage moisture on a fat-free basis, i.e.,

$$\frac{\text{weight of moisture in the cheese}}{\text{total weight of cheese} - \text{weight of fat in the cheese}} \times 100$$

The designation of a cheese with moisture on a fat-free basis of 57 % which is ripened in a manner similar in which Danablu is ripened would be:

"Mould ripened firm cheese or firm mould ripened cheese."

### 8.2.2 Declaration of milk fat content

The milk fat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either i) as a percentage by mass, ii) as a percentage of fat in dry matter, or iii) in grams per serving as quantified in the label provided that the number of servings is stated.

Additionally, the following terms may be used:

High fat	(if the content of FDM is above or equal to 60 %);
Full fat	(if the content of FDM is above or equal to 45 % and less than 60 %)
Medium fat	(if the content of FDM is above or equal to 10 % and less than 45 %)
Low fat	(if the content of FDM is above or equal to 10% and less than 25% )
Skim	(if the content of FDM is less than 10 %)

### 8.2.3 Name of manufacturer

In the case of cheese for export, the original cheese, or where not possible, the original pack or prepared consumer pack shall be marked with the name of the manufacturer or exporter in clear lettering.

#### **8.2.4 Country of manufacture**

In the case of cheeses sold in the home market and designated by the name of cheese not originating in the producing country, the original cheese, or where not possible, the original pack or prepared consumer pack shall be marked with 'the name, or other clear indication, of the producing country'. 'Other clear indication' could include things such as a clear statement of the full address of the manufacturer or the name of a well recognized state, region or province of the producing country.

#### **8.2.5 Prepackaged cheese**

**8.2.5.1** When cheese, which in cut or sliced form and ready for consumption has been packed out of sight of the consumer, is for sale, the following additional information shall appear on the pack of the prepackaged cheese, except where the prepackaged cheese, is intended for manufacturing purposes:

**8.2.5.2.** The name and address of the prepacker, or of the manufacturer, or of the importer, or of the seller of the prepacked cheese.

#### **8.2.6 Labelling of non-retail containers**

Information required in Clause 12 of standard and KS EAS 38 and, if necessary, storage instructions, shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer or packer shall appear on the container, and in the absence of such a container on the cheese itself. However, lot identification, and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

#### **8.2.7 Date marking:**

Date of manufacture and expiry

#### **8.2.8 Name and address of manufacturer**

#### **8.2.9 Storage conditions**

### **10 Methods of sampling**

Sampling shall be carried out in accordance with KS ISO 707.

### **11 Methods of chemical analysis**

Chemical analysis for cheese shall be carried out in accordance with the normative standards listed in Clause 2 of this standard.

### **12 Methods for microbiological examination**

These shall be according to relevant method of microbiological examination of milk and milk products.



## Annex A (Informative)

### Cheese characteristics

#### Cheese rind

During ripening of the moulded cheese curd in natural creation or in environments in which the air humidity and, possibly, air composition are controlled, the outside of the cheese will develop into a semi-closed layer with a lower moisture content. This part of the cheese is called rind. The rind is constituted of cheese mass which, at the start of the ripening, is of the same composition as the internal part of the cheese. In many cases, the brining of cheese initiates the formation of rind. Due to the influence of the salt gradient in the brine, of oxygen, of drying out and of other reactions, the rind successively becomes of a somewhat different composition than the interior of the cheese and often presents a more bitter taste.

During or after ripening the cheese rind can be treated or can be naturally colonized with desired cultures of microorganisms, for instance *Penicillium candidum* or *Brevibacterium linens*. The resulting layer, in some cases referred to as smear, forms a part of the rind.

Rindless cheese is ripened by the use of a ripening film. The outer part of that cheese does not develop a rind with lower moisture content although influence of light of course can cause some difference compared to the inner part.

#### Cheese surface

The term "cheese surface" is used for the outside layer of cheese or parts of cheese, even in the sliced, shredded or grated form. The term includes the outside of the whole cheese, disregarding whether a rind has been formed or not.

#### Cheese coatings

Cheese can be coated prior to the ripening, during the ripening process or when the ripening has been finished. When a coating is used during ripening the purpose of the coating is to regulate the moisture content of the cheese and to protect the cheese against microorganisms.

Coating of a cheese after the ripening has been finished is done to protect the cheese against microorganisms and other contamination, to protect the cheese from physical damage during transport and distribution and/or to give the cheese a specific appearance (e.g. coloured).

Coating can be distinguished very easily from rind, as coatings are made of non-cheese material, and very often it is possible to remove the coating again by brushing, rubbing or peeling it off.

Cheese can be coated with:

- A film, very often polyvinylacetate, but also other artificial material or material composed of natural ingredients, which helps to regulate the humidity during ripening and protects the cheese against microorganisms (for example, ripening films).<sup>2</sup>
- A layer, mostly wax, paraffin or a plastic, which normally is impermeable to moisture, to protect the cheese after ripening against microorganisms and against physical damage during retail handling and, in some cases to contribute to the presentation of the cheese.

1 Amendment adopted by the 26th Session of the Codex Alimentarius Commission.

2 Wheat gluten or wheat protein products should not be used for technological reasons e.g. coating or processing aids for foods which are gluten-free by nature - Codex Standard for Wheat Protein Products including Wheat Gluten.

**Annex B**  
(Normative)

**Classification of cheese according to firmness, fat content and principal curing characteristics**

The following classification shall be applicable to all cheeses covered by this standard. However, this classification shall not preclude the designation of more specific requirements in individual cheese standards.

**Table B.1 — Classification of cheese**

	<b>Term I</b>		<b>Term II</b>	<b>Term III</b>
If the MFFB <sup>a)</sup> is %	The first phrase in the designation shall be	If the FDB <sup>b)</sup> is %	The second phrase in the designation shall be	Designation according to principal curing characteristics
< 51	Extra hard	> 60	High fat	i) cured or ripened
49 - 56	Hard	>45 ≤ 60	Full fat	a) mainly surface
54 - 63	Semi-hard	>25 ≤ 45	Medium fat	b) mainly interior
61 – 69	Semi-soft	>10 ≤25	Low fat	ii) mould cured or ripened
> 67	Soft	≤10	Skim	a) mainly surface b) mainly interior iii) uncured or unripened
<sup>a)</sup> MFFB equals percentage moisture on a fat-free basis, i.e. $\frac{\text{weight of moisture in the cheese}}{\text{total weight of cheese} - \text{weight of fat in the cheese}} \times 100$ <sup>b)</sup> FDB equals percentage fat on the dry basis, i.e. $\frac{\text{fat content of the cheese}}{\text{total weight of cheese} - \text{weight of moisture in the cheese}} \times 100$				

**Example:** The description of a cheese with moisture on a fat-free basis of 57 % and fat on a dry basis of 53 %, which is cured in a manner similar to that in which Roquefort is cured, would be:

semi-hard  
(Term I)

full fat  
(Term II)

interior mould cured cheese  
(Term III)

**(Annex C)**  
(Informative)

**Types of cheeses categorised by hardness**

<b>Categories</b>	<b>Types of cheese</b>
Soft ripened cheeses	Brie (single, double and triple cream and flavoured) Camembert blue Blue- veined cheeses
Soft-fresh cheeses	Cottage cheese Cream cheese Feta paneer Ricotta Mascarpone Queso blanco Neufchatel (plain and flavoured) Fresh goat cheese Halloumi
Semi-soft cheeses/ semi- hard cheeses	Halloumi Roquefort Gouda: Cheddar Smoked gouda Aged gouda Edam Flavoured gouda Mozzarella: Fresh Mozzarella Low moisture, part skim Mozzarella Low moisture, whole milk mozzarella Part skim mozzarella Whole milk mozzarella Pizza cheese Quick frozen Mozzarella String cheese Aged, mild, and smoked mozzarella provolone Swiss cheese: Swiss Baby swiss Gruyere Processed cheeses: Pasteurized processed cheese Pasteurized processed cheese food pasteurized processed cheese spread Pasteurized processed cheese product
Hard cheeses	Parmesan Romano Asiago Pepato