KENYA STANDARD

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ICS 67.100.10

Goat Cheese — Specification

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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
Ministry of Agriculture, Livestock and Fisheries — Department of Veterinary Services
Egerton University — Department of Dairy and Food Science Technology
Government Chemist's Department
National Public Health Labs
Kenya Industrial Research and Development Institute (KIRDI)
Consumer Information Network
New Kenya Creameries Cooperative (NKCC)
Brookside Dairy Ltd.
Eldoville Dairies Limited
Githunguri Dairy
Happy Cow Ltd
Brawns Cheese
Raka Milk Processors Ltd
Sameer Agriculture and Livestock (K) Limited
KIBIDAV Ltd (TOGGS)
Kenya Bureau of Standards — Secretariat

REVISION OF KENYA STANDARDS

In order to keep abreast with the progress in the industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Goat Cheese— Specification

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Foreword

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

Goat cheese is a fresh packaged cheese is a very nutritious food which consists of a concentration of the constituents of milk, principally fat, casein and insoluble salts, together with water, in which small amounts of soluble salts, lactose, and albumin from milk are coagulated.

This Kenya Standard covers composition, quality, hygienic, contaminants and labeling requirements of goatcheese.it also includes a list of food additives along other technical requirements which are important in checking cheese under the regulatory system to prevent adulteration.

In the preparation of this standard useful information was derived from members of the technical committee, general standard for cheeses (KS 28-1) and local manufacturers

Goat Cheese— Specification

1 Scope

This Kenya Standard prescribes the requirements and methods of test and sampling for Goat cheese intended for direct consumption or for further processing, in conformity with the description in Clause 3 of this standard.

This Kenya Standard applies to Goat cheese made from pasteurized goat's milk

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.

CODEX STAN 208, Codex Standard for cheese in brine
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*
KS EAS 38, Labelling of prepackaged foods
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
CAC/MRL 2 Maximum Residue Limits for Veterinary Drugs in Food
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
KS 2455, General Standard- Food Safety
KS 1552: 2016; Code of hygienic practice for milk and milk products
KS 2455, General Standard- Food Safety
KS 2191: 2016; Pasteurized Goat Milk— Specification
KS 1552:2016 – Code of hygienic practice for milk and milk products
KS EAS 69, Pasteurized milk- Specification
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 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 Sodium chloride content — Potentiometric titration method*
KS ISO 6731, *Milk, cream and evaporated milk - Determination of total solids content (reference method)*
KS ISO 6732; Milk and milk products -- Determination of iron content -- Spectrometric method (Reference method)
KS ISO/TS 6733; Milk and milk products -- Determination of lead content -- Graphite furnace atomic absorption spectrometric method
KS ISO 11866-2:2007; Milk and milk products-Enumeration of presumptive escherichia coli - Part 2: Colony-counts
KS ISO 11866-1:2005 (IDF 170-1:2005); Milk and milk products -- Enumeration of presumptive Escherichia coli -- Part 1: Most probable number technique using 4-methylumbelliferyl-beta-D-glucuronide (MUG.

KS ISO 6579:2002 Microbiology of food and animal feeding stuffs - Horizontal method for the detection of Salmonella spp
KS ISO 11866-2, Milk and milk products-Enumeration of presumptive escherichia coli - Part 2: Colony-count technique at 44 °C using membrane
KS ISO/TS 11869:2012; Fermented milks -- Determination of titratable acidity -- Potentiometric method
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
KS ISO 16649-1:2001; Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli -- Part 1: Colony-count technique at 44 degrees C using membranes and 5-bromo-4-chloro-3-indolyl beta-D-glucuronide
KS ISO 4833-1:2013; Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms -- Part 1: Colony count at 30 degrees C by the pour plate technique

KS ISO 5738:2004 (IDF 76:2004); Milk and milk products -- Determination of copper content -- Photometric method (Reference method)

KS ISO 5546:2010 (IDF 115:2010); Caseins and caseinates -- Determination of pH (Reference method)

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 6888-1:1999; Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) -- Part 1: Technique using Baird-Parker agar medium
KS ISO 8968-1:2014 (IDF 20-1:2014); Milk and milk products -- Determination of nitrogen content -- Part 1: Kjeldahl principle and crude protein calculation

3 Description

3.1 Goat cheese is reserved to cheeses of diverse shape and weight, prepared with goat milk exclusively. Goat cheeses are categorized as unripened (fresh) cheese or ripened cheese. The texture of each is defined as soft, semisoft, firm, or hard. Goat cheeses fresh are white and creamy in colour with a typical goat cheese, mild and tangy flavor. Aged cheeses may be gray in color and stronger in flavor.

3.1.1 Soft, unripened goat cheeses
Soft Unripened goat cheeses have a tang (some much more so than others) and usually a moist, fresh curd texture, white in colour with mild tangy flavor. They are produced using lactic bacteria and no or very little addition of rennet. They are higher in moisture and have no rind.

3.1.2 Soft, ripened goat cheeses
Have a velvety-looking white surface mold (from Penicillium candidium) like cow's milk Camembert or Brie. The center is creamy while the exterior is white mold. Others don't get as soft and may look crumbly but will taste very smooth. As the cheese ages, the white mold turns darker and brownish which can be trimmed off, if desired. Soft-ripened goat cheeses have a more complex flavor and aroma than unripened cheeses and with no soured smell

3.1.3 Semi-soft, ripened goat cheese
Has white to off white body, smooth texture,with a typical sweet, clean goat and nutty flavor, free from strong, stale, rancid or foreign odours

3.1.4 Firm, unripened goat cheeses
Are caramel in color, with a very sweet, slightly tangy flavor and a firm, buttery consistency

3.1.5 Hard, unripened or ripened goat cheeses

Are firm textured and the curds are pressed. Aging matures and dries them.

4 Essential composition and quality factors

4.1 Raw materials

Goat's milk and products obtained from goat milks complying with relevant Kenya standards

4.2 Permitted ingredients

- Starter cultures of harmless lactic acid and or flavor producing bacteria and cultures of other harmless microorganisms.'
- Moulds for rind formation on ripened goat cheeses including geotricum lactis, penicillium candidum, album or glaucum
- Rennet or other safe and suitable coagulating enzymes;
- Sodium chloride and potassium chloride as a salt substitute; complying with KS CODEX STAN 150
- Calcium chloride in an amount not more than 0.02 percent (calculated as anhydrous calcium chloride) of the weight of the dairy ingredients, used as a coagulation aid.
- Potable water; complying with KS EAS 12
- Gelatine and starches: Notwithstanding the provisions in the General Standard for Cheese (KS 28-1), these substances can be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice taking into account any use of the stabilisers/thickeners listed in section 5;
- Vinegar;
- Edible vegetable ash for coating of the rind
- Safe and suitable enzymes to enhance the ripening process;
- Flavoring agents such as edible oil, herbs and spices
- Anti-caking agents may be used to minimize clumping and keep free flowing provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice, taking into account any use of the anticaking agents listed in **Clause 6**.

4.3 compositional requirements

4.3.1 Table 1: compositional requirements for Fresh Goat cheese

<table>
<tr><td>Milk constituent</td><td colspan="2" rowspan="2">45%</td><td>Methods of Analysis</td></tr>
<tr><td>Milkfat in dry matter minimum content:</td><td>KS ISO 1735 or AOAC933.05</td></tr>
<tr><td rowspan="5">Dry matter (Total Solids):</td><td colspan="2">Depending on the fat in dry matter content according to the table below</td><td rowspan="5">KS ISO 5534</td></tr>
<tr><td>Fat in dry matter *content (m/m) :)</td><td>Corresponding minimum dry matter content (m/m</td></tr>
<tr><td>Equal to or above 45% but less than 55%:</td><td>43%</td></tr>
<tr><td>Equal to or above 55% but less than 60%:</td><td>48%</td></tr>
<tr><td>Equal to or above 60%:</td><td>51%</td></tr>
<tr><td>Moisture (vacuum Oven), Max</td><td colspan="2">58%</td><td>KS ISO 5534 or AOAC 926.08</td></tr>
<tr><td>Salt % Max</td><td colspan="2"><1%</td><td>KS ISO 5943 or AOAC983.14</td></tr>
<tr><td>PH value</td><td colspan="2">4.2-4.4</td><td>KS ISO 5546 OR PH Meter</td></tr>
</table>

4.3.2 Other Goat cheese varieties, as defined in clause 3 above, shall conform to the compositional requirements provided in the Annex

6 Food additives

Only those additives classes indicated as justified in the table below may be used for the product categories specified. Within each additive class, and where permitted according to the table, only those food additives listed below may be used and only within the functions and limits specified.

Table 2

	Justified use:	
Additive functional class:	**Cheese mass**	**Surface/rind treatment**
Colours:	X1	—
Bleaching agents:	—	—
Acids:	—	—
Acidity regulators:	X	—
Stabilizers:	—	—
Thickeners:	—	—
Emulsifiers:	—	—
Antioxidants:	—	—
Preservatives:	X	X
Foaming agents:	—	—
Anti-caking agents:	—	X2

1 Only to obtain the colour characteristics, as described in Clause 3

2 For the surface of sliced, cut, shredded or grated cheese, only

X The use of additives belonging to the class is technologically justified

— The use of additives belonging to the class is not technologically justified

Table 3 — Food additives

INS No.	**Name**	**Maximum Level**
	Colours	
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
1+60a(i)	β-Carotene (synthetic)	25mg/kg
160a(ii)	Carotenes (natural extracts)	600 mg/kg
160b	**Annatto extracts**	
	- 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	β-apo-Carotenal	35 mg/kg
160f	β-apo-8'-Carotenoic acid, methyl or ethyl ester	35 mg/kg
162	Beet red	Limited by GMP
171	Titanium dioxide	Limited by GMP
	Acidity regulators	
170	Calcium carbonates	Limited by GMP
504	Magnesium carbonates	
575	Glucono delta-lactone	Limited by GMP
	Preservatives	
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 $NaNO_3$
252	Potassium nitrate	
280	Propionic acid	3000 mg/kg, calculated as propionicacid
281	Sodium propionate	
282	Calcium propionate	
1105	Lysozyme	Limited by GMP
	For surface/rind treatment only:	
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^2 of surface. Not present in a depth of 5 mm
	Miscellaneous additive	
508	Potassium chloride	
	Sliced, cut, shredded or grated cheese	
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	
	Preservatives	
200	Sorbic acid	1 g/kg singly or in combination, calculated as sorbic acid
202	Potassium sorbate	
203	Calcium sorbate Natamycin	

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 the General Principles of Food Hygiene (CAC/RCP 1-1969), the Code of Hygienic Practice for Milk and Milk Products (KS 1552 and other relevant Kenya standards and regulations. The products should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods CAC/GL 21

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

Table 4 — Microbiological requirements for Goat cheese

S/N	Quality	Requirements	Test method

	Total plate count /g, Max	*20000 cfu/g*	KS ISO 4833
	Listeria monocytogenes in 25/g *max,*	*Nil*	*KS ISO 4833 OR AOAC 99.06*
	Salmonella spp in 25g or (ml)	*Nil*	*KS ISO 4833*
	Shigella in25g or (ml)	*Nil*	*KS ISO 21567 or KS ISO 4833*
	Clostridium botulinum	*Nil per gram*	*KS ISO 4833*
	Staphylococcus aureus in 25g or (ml)	*Nil*	*KS ISO 4833*
	E.coli in25g or (ml)	*Nil*	*KS ISO 4833 OR AOAC 983.14*
	Faecal coliforms:, max	*Nil per gram*	*KS ISO 4832*
	Non-faecal coliforms, max	*<100cfu/g*	*KS ISO 4832*
	Yeast and Mould, max	*1000 cfu/g gram*	*KS ISO 6611*

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 5 — Limits for heavy metal contaminants for Goat cheese

SL No	**Heavy metal**	**MRL (Max.)**	**Test method**
i).	Arsenic (AS)	0.1 mg/kg	*AOAC 942.17*
ii).	Lead (PH)	0.02 mg/kg	AOAC 972.25 / KS ISO 6733
iii).	Mercury (Hg)	1.0 mg/kg	AOAC 999.10

iv).	Copper (Cu)	5.0 mg/kg	AOAC972.25 / KS ISO 5738
v).	Zinc (Zn)	50 mg/kg	AOAC 999.10
vi).	Tin (Sn)	250 mg/kg	AOAC 999.10
vii).	Cadmium as Cd,	1.5 mg/kg	AOAC 999.10
viii).	Iron (fe),	0.5 mg/kg	AOAC 999.11/ KS ISO 6732

7.2 Pesticide residues

In addition to the maximum pesticide residue limits in table 7 below; the products covered by the provisions of this standard shall conform to those maximum limits for Pesticide residue limits established by the Codex Alimentarius Commission for these products in codex Stan 193;

Table 6- maximum Pesticide residue limits for Goat cheese

S/N	Parameter	Requirements	Test method
i	ORGANOCHLORINE Group	0.01 ppm	KS ISO 3890-1:2009 OR AOAC 970.52
ii	ORGANOPHOSPHOROUS Group	0.01 ppm	AOAC 970.52

7.3 Mycotoxin residues

Goat cheese shall not have more than 0.05ppb aflatoxin m1 content when tested according to KS ISO 14501:2007/ **AOAC 974.17 and AOAC 980.21 ,** Aflatoxin M1 in milk and cheese-thin layer chromatographic methods

7.4 Total Antibiotic residues

Goat cheese shall not have more than 10.0 ppb total antibiotic residues as (beta lactam) content when tested according to AOAC 982.14, 15, 16, 17 and18, and AOAC 962.14, Beta-lactam Antibiotics in milk

7.5 Veterinary Drug Residues

In addition to the maximum veterinary drug residue limits in table 6 below; the products covered by the provisions of this standard shall conform to those maximum limits for veterinary drug residue limits established by the Codex Alimentarius Commission for these products in codex Stan 193;

Table 7- maximum veterinary drug residue Limits for Goat cheese

S/N	Parameter	Requirements/ MRL	Test method
i	ChloramPhenical	*ND*	*AOAC 972.17*
ii	Nitrofunas(including metabolites)	*ND*	*AOAC*
	Ronidazole	ND	*AOAC*
	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

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

8.2 Labelling

In addition to the provisions of General Standard for the Labelling of Prepackaged Foods; KS EAS 38 and the General Standard for the Use of Dairy Terms (CODEX STAN 206-1999), the following specific provisions apply:

8.2.1 Name of the food

The name of the food shall be ‘Goat Cheese’.

In case the product is not designated by an alternative or a variety name, but with the designation “goat cheese”, the designation may be accompanied by a descriptive term such as provided for in clause 8.2.3.

Goat cheese may alternatively be designated “fresh cheese” provided it is not misleading to the consumer in the country in which the product is sold.

The use of the name is an option that may be chosen only if the cheese complies with this standard. Where the name is not used for a cheese that complies with this standard, the naming provisions of the KS 28-1, General standard for cheese shall apply.

The designation of goat cheese in which the fat content is below or above the reference range but above the absolute minimum specified in section 4.3 of this Standard shall be accompanied by an appropriate qualification

describing the modification made or the fat content (expressed as fat in dry matter or as Percentage by mass whichever is acceptable in the country of retail sale).

The designation may also be used for cut, sliced, shredded or grated products made from cheese which cheese is in conformity with this Standard.

8.2.2 Country of origin

The country of origin (which means the country of manufacture, not the country in which the name originated) shall be declared. When the product undergoes substantial transformation in a second country, the country in which the transformation is performed shall be considered to be the country of origin for the purpose of labeling.

8.2.3 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."

8.2.3 Declaration of milkfat content

The milk fat content shall be declared in a manner found acceptable in the country of retail sale, 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 %)

8.2.4 Nutrient Declaration

Nutritional claim shall be made in accordance with the Guidelines for the Use of Nutritional Claims (CAC/GL 23-1997)

8.2.5 Declaration of allergen information

8.2.6 Declaration of GMO and Gluten Status, where applicable

8.2.7 Date marking:

i) Date of manufacture

ii) Expiry date;

ii) Storage instructions and / or conditions

8.29.8 Name and address of manufacturer

8.2.9 Net weight content

8.2.10 Brand name of the product

8.2.11 Batch or code number

8.2.12 Labelling of non-retail containers

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 of the manufacturer or packer shall appear on the container, and in the absence of such a container, on the product itself. However, lot identification and the name and address may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

9 Methods of Analysis and Sampling

The methods of sampling and analysis shall be those provided in the normative references listed in Clause 2 of this standard.

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 may 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).2

— 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

	Term I		**Term II**	**Term III**
If the MFFB [a] is %	The first phrase in the designation shall be	If the FDB [b] 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

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

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

[b])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	full fat	interior mould cured cheese
(Term I)	(Term II)	(Term III)

Table B.2 - Compositional requirements for all the Goat 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
Test Method		KS ISO 1735 or KS ISO **3433**	KS ISO 1735 or KS ISO 3433	KS ISO 5534	KS ISO 5534

Note: The salt content shall not be more than 3%

