



FINISHED PRODUCT SPECIFICATION
CHEESE ANALOGUE
 For Milkpartners

1. **General description:** cheese analogue produced on accordance with aging cheese production technology, from skimmed pasteurized milk standardized with palm vegetable oil.
2. **Ingredients:** pasteurized milk, palm oil, salt, pure bacterial cultures, rennet, calcium chloride stabilizer, carotenes colour.
3. **Intended use:** for direct consumption or for further processing, for example: melting, shredding, slicing, cutting, smoking.
4. **Organoleptic characteristics:**

Appearance	Block with slightly convex or concave sides, slightly rounded, light imprint of form and foil bags acceptable.
Colour	Cream, yellow to dark yellow.
Consistency	Soft, elastic, homogenous body.
Eyes	Few eyes, round, oval, single irregular eyes or lack of them is acceptable.
Flavour and aroma	Mild, slightly sour, slightly spicy, slightly bitter acceptable.

5. **Chemical properties:**

Moisture [%]:	≤ 45 ± 0,4
Fat content [%]:	27 ± 3,5
Protein [%]:	> 25 ± 0,4
Salt content [%]:	1,5 ± 0,4

6. **Microbiological requirements in conformity with Commission Regulation (EC) No 2073/2005 as amended and internal requirements:**

Parametre	Sample collection scheme		Limits	
	n	c	m	M
Number of bacteria - coli group [CFU/g]	5	2	100	1000
Number of bacteria - E. coli [CFU/g]	5	2	100	1000
Number of yeast and mould [CFU/g]	-	-		≤500
Number of coagulase positive staphylococcus [CFU/g]	5	2	100	1000
Listeria monocytogenes [in 25g]	5	0		None
Anaerobic spore-forming bacteria [in 0,1g]	-	-		None

7. **Additional requirements:**

Allergens	Milk and products thereof (including lactose) in conformity with Regulation (EU) No 1169/2011 of the European Parliament and of the Council as amended.
GMO	The product does not include genetically modified material in conformity with Regulation (EC) No 1829/2003 and 1830/2003 of the European Parliament and of the Council as amended.
Chemical pollutants	In conformity with Commission Regulation (EC) No 1881/2006 as amended.
Pesticides content	In conformity with Regulation (EC) No 396/2005 of the European Parliament and of the Council as amended.
Packaging Declaration of Conformity	In conformity with Commission Regulation (EU) 10/2011 as amended.

8. **Packaging, labeling, storage and transport:**

Packaging: heat-shrinkable cryovac foil bags, net weight approx. 3 kg or other.

Labeling: in conformity with Regulation (EU) No 1169/2011 of the European Parliament and of the Council as amended.

The label provides the following information: name of the product, name and address of the manufacturer or name and address of the distributor, veterinary identification number, ingredients, nutritional value, conditions for storage, best before dates, batch number, net weight.

Storage and transport: storage period in the temperature from +1°C to +8°C: 6 months from the date of finishing the technological process. The product must be transported in refrigerated trucks with storage temperature due.

9. **Nutritional value 100g:**

Product nutritional value	in 100g
Energy	1424kJ/343kcal
Fat	27g
of which	
saturates	14g
Carbohydrates	0g
of which	
sugars	0g
Protein	25g
Salt	1,8g

Name and surname	Title	Date and signature
<i>Prepared:</i> Joanna Todryk	Quality Control Laboratory Manager	02.06.20 <i>Todryk</i>
<i>Verified by:</i> Małgorzata Chodorska	Production Manager	02.06.20 <i>Chodorska</i>

PRODUCT QUALITY SPECIFICATION PERŁA WARMII

Producer: Polmlek Sp. z o.o. 03-152 Warszawa, ul. Modlińska 310/312
 Dairy Plant in Lidzbark Warmiński, ul. Topolowa 1, 11-100 Lidzbark Warmiński
 tel. 89 521 57 00, fax. 89 767 26 60

Analogue rennet-based maturing, fat product, produced from **skim milk** with the addition of vegetable fat.

Organoleptic characteristics

Parameter	Standard	Rejection
Appearance	A block with slightly convex and rounded edges.	Misshapen block
Skin	Smooth, slight imprints of the moulds are acceptable, it can be covered with a plastic coating.	Considerable mechanical damage
Eyes	Eyes of various sizes, round and oval, rice grain size, single hazelnut size eyes are acceptable.	Numerous cracks
Consistency	The inside is soft, flexible, homogeneous throughout, slightly plastic when rubbed.	Greasy
Colour	From light yellow to yellow, only individual pigments from vegetable fat are allowed.	-
Flavour /Odour	Slightly sour, slight pasteurisation aftertaste, slightly spicy, possible taste of vegetable fat.	Unclear, bitter

Physical properties

Parameter	Standard
Net weight / kg	euroblocks 15 - 16,5 blocks 2,8 - 3,5 shredded 2 kg
Height / cm	euroblocks 10 ± 0,5 blocks 10 ± 0,5
Width / cm	euroblocks 30 blocks 10
Length / cm	euroblocks 50 blocks 30

Physicochemical properties

Parameter	Standard	Tolerance	Rejection	Method of analysis	Frequency
Water %	43	40 - 45	< 40; > 45	Food Scan	Each strike
Fat %	26	25 - 29	< 25; > 29	Food Scan	Each strike
Fat content in dry matter %	45	43 - 50	< 43; > 50	Food Scan	Each strike
Salt %	1,5	1,2 - 1,8	< 1,2; > 1,8	Food Scan	Each strike

Microbiological properties

Parameter	Norm	Tolerance	Rejection	Method of analysis	Frequency
<i>Salmonella</i>	n = 5, c = 0 not detected in 25 g	-	detected in 25 g	External laboratory	blocks, packed cheese analogue 1 x quarter
<i>Listeria monocytogenes</i>	n = 5, c = 0 not detected in 25 g	-	detected in 25 g	External laboratory	blocks, packed cheese analogue 1 x quarter
<i>Staphylococcus aureus</i>	n = 5, c = 2 m = 100 cfu/g	M = 1000 cfu/g	> 1000 cfu/g	External laboratory	blocks, packed cheese analogue 1 x quarter
<i>Escherichia coli</i>	n = 5, c = 2, m = 100 cfu/g	M = 1000 cfu/g	> 1000 cfu/g	External laboratory	blocks, packed cheese analogue 1 x quarter

List of ingredients

Ingredient	E - number	Origin	% of ingredient	Function
Skim milk	-	Poland	min. 96	-
Non-hardened vegetable palm oil	-	from outside the EU	max. 3,4	-



Attachment

Number: **DHM 6-Z35**
 Version: **1.8**
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 Status: **Valid**
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Salt	-	Poland	1,6	-
Calcium chloride	E 509	EU	0,09	Stabiliser
Lactic acid bacterial cultures (contains lactose from milk)	-	EU	0,08	-
Microbiological rennet	-	EU	0,05	Coagulant
β-carotene	E 160a	EU	0,02	Colouring
Potato starch for shredded cheese	-	Poland	-	Anticaking agent
Nutritional value in 100 g				
Parameter		Standard		
Nutritional value kJ/kcal		1428/344		
Fat in g		26		
including saturated fatty acids in g		13		
Carbohydrates in g		1,4		
including sugars in g		0,2		
Protein in g		26		
Salt in g		1,5		
Storage parameters				
Storage temperatures	blocks from 0°C to +10°C shredded 2°C to +8°C			
Max. storage time from the manufacturing date	6 months euroblocks and blocks 45 days packaged - shredded product			
Other information				
Packaging	Blocks packed in heat-shrink film. Shredded cheese analogue: OPA/PE.			
Labelling	Production date, strike number and best-before date on the weight label Packaged cheeses analogue: best-before date/shift number DD.MM.YYYY/S			
Labelling	Product name, manufacturer's name and address, net weight, best-before date /day, month, year, strike number as the determination of the production lot/, ingredients, information about the fat content, storage conditions, veterinary identification number PL 28091601 WE. Moreover, the information about the nutritional value and packing conditions should be placed on the packaging for packaged cheeses.			
Intended use	For direct consumption and at the Customer's discretion and according to their ingenuity.			
Other information	The product is intended for each consumer, except for persons allergic to cow's milk protein and lactose. The product does not contain GMO ingredients. The product complies with the applicable food law.			
Full name				
Full name		Position	Date	Signature
Prepared by:	Ewa Tyszka	Technologist		
Approved by:	Kinga Budna	Quality System Manager		