



LALLEMAND POLSKA Sp. z o.o.
 Józefów, ul. Fabryczna 1
 05-860 PŁOCHOCIN
 NIP: 118-15-16-988, REGON: 016279509
 tel./fax +48 22 752 53 41

BAKER'S YEAST SPECIFICATION

Version 7

Edition 1

7.3.4.2.

10.07.2014

20.09.2011

**STANDARD
Sema**

Strona 1 z 7

1. PRODUCER INFORMATION**Company Name:** Lallemand Polska Sp. z o.o**Address:** ul. Fabryczna 1, 05-860 Józefów**24hr contact number:** 22 733 84 00**E-mail:** drozdze@lallemand.com**Contact person:** Anna Regulska**Position:** Board Representative for Quality Systems**Tel:** +48 609 995 340**E-mail:** aregulska@lallemand.com**2. PRODUCT DESCRIPTION**

Compressed baker's yeast of STANDARD Sema type is obtained by dehydration of yeast cream in a vacuum filter and formation into blocks of 100g and 500g weight.

Every batch has unit and collective packaging.

3. PRODUCT INTENDED USE

Application in baker's and patisserie industry for baking.

4. CERTIFICATES

Certificate of the Integrated Food Quality and Safety Management System (ZSJiBŻ) pursuant to norms PN-EN ISO 9001:2009 and PN-EN ISO 22000:2006 issued by the Polish Center for Testing and Certification in Warsaw.

Valid by: 03.12.2015.

Kosher certificate issued by the Jewish Community.

Valid by: 31.10.2014.

Halal certificate issued by Islamic Food and Nutrition Council of America (IFANCA).

Valid by: 31.01.2015.

FAMI QS Certificate issued by TÜV SÜD Management Service GmbH.

Valid by: 16.06.2017.

	Name & Surname	Position	Data	Podpis
Updated:	Anna Regulska	Quality Manager	10.07.14	PEŁNOMOCNIK ZARZĄDU dla Systemów Jakości <i>[Signature]</i> mgr inż. Anna Regulska
Approved:	Andrzej Pasicki	General Manager	10.07.14	PREZES ZARZĄDU <i>[Signature]</i> Andrzej Pasicki



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5. QUALITY REQUIREMENTS****5.1. Organoleptic requirements**

Features	Requirements for compressed yeast	Reference method
Color	creamy, grey hue and brown-darkening of yeast surface edges due to dry-out acceptable	PN-A-79005-3: 1997
Taste / Aroma	characteristic of fresh yeast; without extraneous after-taste or smell	PN-A-79005-3: 1997
Consistency	compact; yeast cube should break easily	PN-A-79005-3: 1997

5.2. Physical-chemical requirements

Features	Requirements for compressed yeast		Reference method
	500g	100g	
Dry matter content [%]	>30 may change in storage	>28 may change in storage	PN-A-79005-4: 1997
Rising power expressed by volume of CO ₂ [ml] released at 30 °C: after 60 min/after 120 min	Standard dough: >550±50 >1450±50 Sweet dough: >500±50 >1200±50	Standard dough: >500±50 >1400±50 Sweet dough: >500±50 >1200±50	PN-A-79005-5: 1997
Protein content [%]	42÷48 (variations depending on dry matter content)		PN-A-79005-7
pH	5±2(may change in storage)		PN-A-79005-10
Phosphorus content [%]	2,0 – 2,7		PN-A-79002-1998
Thermostatic keepability of yeast stored at temp. 35 °C [h], not less than:	144		PN-A-79005-6: 1997
Shelf life in cooled conditions	30 days*	35days*	PN-A-79535
Content of mechanical impurities	Stainless steel (detection sensitivity threshold 4,5 mm) Ferrous (detection sensitivity threshold 4,5 mm) Bronze, Copper (próg czułości detekcji 4,5 mm) Over: unacceptable		Sensitivity threshold established individually by the producer based on technical testing of metal detector

Criteria checked by internal plant and independent Research Laboratory:

- VH Berlin e.V. Research Institute for Baker's Yeast, Seestrass 13, D-13353 Berlin;
- Lallemand GmbH, Ottakringer 89, A-1160 Wieden;

5.3 Requirements pursuant to the criteria of food law binding in the European Union countries (*regulations in their latest released public version).

5.3.1 Pursuant to Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs, the relevant hygiene requirements are met at all production stages and the developed procedures are based on the principles of Good Manufacturing Practice, Good Hygiene Practice and HACCP system.

5.3.2 Pursuant to Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, there have been developed the procedures which enable to monitor the products at all the production stages and to undertake actions within the recall of the products non-compliant with the safety requirements.

5.3.3 Pursuant to Regulation (EC) No 1831/2006 of the European Parliament and of the Council of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs, as well as Regulation of the Minister of Health of 13

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January 2003 on maximum levels of chemical and biological contaminants which can be present in food, food ingredients, allowable additional substances, processing-facilitation substances or on food surface, the following limits have been adopted:

Heavy metal content [mg/kg]*	Requirements for compressed yeast	Reference method
Arsen	< 0,5	Determination performed once a year by independent Research Laboratory*
Kadm	< 0,05	
Rtęć	< 0,02	
Ołów	< 0,5	
Cynk	< 100	
Mycotoxins content [ug/kg]*	Requirements for compressed yeast	
Ochratoksyna A	3,0	
Aflatoksyna B1	2,0	
Aflatoksyna (B1+B2+G1+G2)	4,0	
Deoksyniwalenol	750	
Zearalenon	750	

*Criteria checked once per year by independent Research Laboratory:

- Mennica Metale Szlachetne, Laboratorium Analityczne, Ul. Weteranów 95, 05-250 Radzymin,
- Instytut Biotechnologii Przemysłu Rolno – Spożywczego, ul. Rakowiecka 36, 02 – 532 Warszawa
- JARS Sp. z o.o. Laboratorium Badawcze, ul. Kościelna 2a, 05-119 Legionowo
- Hamilton Poland S. A., ul. Chwaszczyńska 180, 81-571 Gdynia

Pursuant to Commission Regulation (EC) No 1441/2007 of 5 December 2007 amending Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs as well as Regulation of the Minister of Health of 27 December 2000 on the list of acceptable quantities of additional substances and other extraneous substances added to foodstuffs or stimulants, as well as contaminants which can be present in foodstuffs or stimulants and pursuant with COFALEC Characteristics of Fresh Baker's Yeast***, the following limits have been adopted:

Microbiological criterion [cfu/g]	Requirements for compressed yeast	Reference method
Ogólna liczba bakterii	<10 ⁸	Internal metod/ External Laboratory
Bakterie z grupy coli*	<500	
Pleśnie i drożdże dzikie	<1000	
Enterobacteriaceae*	<1000	
<i>E. coli</i> *	<100	
<i>S. aureus</i> *	absent in 1g	External Laboratory
<i>B. cereus</i> , <i>B. subtilis</i> *	<100	
<i>Salmonella</i> *	absent in 25g/ 250g/ 375g	
<i>L. monocytogenes</i> w produkcie wprowadzanym do obrotu*	absent in 25g	
<i>L. monocytogenes</i> w ciągu okresu przydatności*	<10 ²	

*Criteria checked once per year by independent Research Laboratory:

- Wojewódzka Stacja Sanitarno – Epidemiologiczna, ul. Żelazna 79, 00- 875 Warszawa,
- Silliker Sp. z o.o., ul. Waryńskiego 1, 00 – 645 Warszawa
- VH Berlin e.V. Research Institute for Baker's Yeast, Seestrasse 13, D-13353 Berlin;
- Lallemand GmbH, Ottakringer 89, A-1160 Wiedeń;
- Novum Analytik GmbH, Hofackerstr. 5, 74172 Neckarsulm

5.3.4 Pursuant to Regulation (EC) No 178/2006 of the European Parliament and of the Council of 1 February 2006 on maximum residue levels of pesticides in food and feed, the organization declares that the raw materials used in yeast production satisfy the requirements of maximum residue levels of pesticides*.

*Criterion tested also by independent Research Laboratory:

- Instytut Biotechnologii Przemysłu Rolno – Spożywczego, ul. Rakowiecka 36, 02 – 532 Warszawa,
- JARS Sp. z o.o. Laboratorium Badawcze, ul. Kościelna 2a, 05-119 Legionowo

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5.3.5 Pursuant to Regulation (EC) No 1829/2003 of 22 September 2003 on genetically modified food and feed as well as No 1830/2003 concerning the traceability and labeling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms, the organization declares that the yeasts used for production are not genetically modified organisms and they do not contain any other genetically modified organisms.

*Criterion tested also by independent Research Laboratory:

- JARS Sp. z o.o. Laboratorium Badawcze, ul. Kościelna 2a, 05-119 Legionowo

5.3.6. Pursuant to Regulation of the Minister of Agriculture and Rural Development of 10 July 2007 on labeling of foodstuffs and pursuant REGULATION (EU) No 1169/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on the provision of food information to consumers and Regulation (EC) No 1333/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on food additives, the organization declares that the baker's yeast does not contain the allergens listed below (besides of sulphuric dioxide) and that it is free from cross contaminations with allergens:

Allergens	Presence in product	Presence of cross contaminations
Cereals containing gluten (i.e. wheat, rye, oats, barley, spelt, kamut or their hybridized strains) and products thereof	absent	not detected
Crustaceans and products thereof	absent	not detected
Eggs and products thereof	absent	not detected
Fish and products thereof	absent	not detected
Peanuts and products thereof	absent	not detected
Soybeans and products thereof	absent	not detected
Milk and products thereof (including lactose)	absent	not detected
Nuts, i.e. almond (<i>Amygdalus communis</i> L.), hazelnut (<i>Corylus avellana</i>), walnut (<i>Juglans regia</i>), cashew (<i>Anacardium occidentale</i>), pecan nut (<i>Carya illinoensis</i> (Wangenh.) K. Koch), Brazil nut (<i>Bertholletia excelsa</i>), pistachio nut (<i>Pistacia vera</i>), Macadamia nut and Queensland nut (<i>Macadamia ternifolia</i>) and products thereof	absent	not detected
Celery and products thereof	absent	not detected
Mustard and products thereof	absent	not detected
Sesame seeds and products thereof	absent	not detected
Sulphur dioxide and sulfites at concentrations of more than 10 mg/kg or 10 mg/l expressed as SO ₂	<1000 mg/kg*	not detected
Lupine and products thereof	absent	not detected
Molluscs and products thereof	absent	not detected

*Criterion tested also by independent Research Laboratory:

- JARS Sp. z o.o. Laboratorium Badawcze, ul. Kościelna 2a, 05-119 Legionowo

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5.3.7. Pursuant to Regulation (EC) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, the organization declares that the baker's yeast does not belong to the group of foods exempt from the requirement of the mandatory nutrition declaration (Annex V to the Regulation). The following table presents typical nutritional values for baker's yeast with dry matter content of approx. 30 % - on the basis of **General Characteristics of Fresh Baker's Yeast***** :

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Updated:	Anna Regulska	Quality Manager	10.07.14	PEŁNOMOCNIK ZARZĄDU ds. Systemów Jakości mgr inż. Anna Regulska
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Nutritional value (typical) 100g of fresh baker's yeast (dry matter 30%)	Typical value
Energy	111 kcal / 465 kJ
Fat	1,8g
of which	
- saturates	0,3g
- polysaturates	<0,3g
Carbohydrate	4,5g
of which	
- sugars	
- polyos	3,7g
- starch	
Fibre	8,5g
Protein	15g
Salt	0,05g

The values depend on dry matter content and conditions of the process.

6. PACKAGING**

Pursuant to Regulation (EC) No 1935/2004 of the European Parliament and of the Council on materials and articles intended to come into contact with food of 27 October 2004, the unit packaging does not constitute health hazard, does not cause unacceptable changes in the composition or deterioration of organoleptic features of the yeast.

Packaging type	Requirements for compressed yeast	
	500g	100g
Unit packaging	- paper semipergameneous and foil BOPP (25μ) / cellophane (transparent)	-ecoline
Collective packaging	- cardboard carton: 10 kg – 4x2500g - pallet: 9 cartons per layer * 8 layers = 72 cartons 72 cartons * 10 kg = 720 kg yeast on pallet (pallet is wrapped in protective stretch foil)	- cardboard carton: 2 kg – 20x100g - pallet: 16 cartons per layer * 15 layers = 240 cartons 240 cartons * 2 kg = 480 kg yeast on pallet + 10 cartons on top = 500 kg (pallet is wrapped in protective stretch foil)

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7. LABELING**

Packaging type	Requirements for compressed yeast	
	500g	100g
Unit packaging	- product trade name: "Sema" - name and address of the producer: - Lallemand Polska Sp. z o.o., 05-860 Płochocin, ul. Fabryczna 1, tel. (+48 22) 733 84 63 tel/fax + 48 22 752 53 41 Email: drozdze@lallemand.com - production batch: batch number - net weight at moment of packing: 500g - storage conditions: dry and cool area at temperature 1-6°C - expiry date	- product trade name: "Sema" - name and address of the producer: - Lallemand Polska Sp. z o.o., 05-860 Płochocin, ul. Fabryczna 1, tel. (+48 22) 733 84 63 tel/fax + 48 22 752 53 41 Email: drozdze@lallemand.com - production batch: batch number - net weight at moment of packing: 100g - storage conditions: dry and cool area at temperature 1-6°C - expiry date
Collective packaging	- product trade name: "Sema" - name and address of the producer: - Lallemand Polska Sp. z o.o., 05-860 Płochocin, ul. Fabryczna 1, tel. (+48 22) 733 84 63 tel/fax + 48 22 752 53 41 Email: drozdze@lallemand.com - production batch: batch number - net weight at moment of packing: 10kg - storage conditions: dry and cool area at temperature 1-6°C - expiry date	- product trade name: "Sema" - name and address of the producer: - Lallemand Polska Sp. z o.o., 05-860 Płochocin, ul. Fabryczna 1, tel. (+48 22) 733 84 63 tel/fax + 48 22 752 53 41 Email: drozdze@lallemand.com - production batch: batch number - net weight at moment of packing: 2kg - storage conditions: dry and cool area at temperature 1-6°C - expiry date

8. STORAGE**

Requirements for compressed yeast	
Storage conditions	- the rooms should be clean, dry, cold and well-ventilated, - the temperature of storage room should be 2-6 °C, - it is not acceptable to place yeast cartons on ice or to expose directly to the sun or precipitation, - the direct neighborhood of the following articles is unacceptable: - perishables, e.g. meat, fish, fruit, vegetables, - emitting odors, e.g. ammonia, gasoline, kerosene
Placement	- place yeast cartons on racks or on pallets, - leave free space between cartons to allow air movement, - yeast cartons must not be placed directly on the floor;
Shelf life	- determined with best-before-date, established based on shelf-life testing - given on unit and collective packaging, preceded with words: "Best before..."

9. TRANSPORT**

Appropriate conditions for the transport of baker's yeast are ensured by obtaining a proper declaration from the carrier where it is confirmed that:

- the transported food and feedstuff is transported in compliance with relevant regulations, directives and guidelines (e.g. 852/2004 EC; 853/2004 EC, 178/2002 EC),
- deliveries from Lallemand Polska are made only with other food and feedstuff,
- in case of bulk product transport, it can be transported only in labeled containers "For food only" or "For feed only",
- in exchange, the carrier is given only appropriately packed and labeled food and feedstuff; the packaging and the containers do not have negative impact on safety, legality or quality of transported goods and are compliant with regulation 852/2004,

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- transport units are secured by the carrier in a way that prevents damage to delivered goods (as a consequence preventing contamination); in case any non-conformities occur, Lallemand Polska must be notified,
- transport vehicles are free from dirt, dampness, pest, mould, and extraneous odors,
- if certain temperature (2-6°C) needs to be maintained during transport, the temperature is maintained and documented from the moment of departure of the transport vehicle from Lallemand Polska till the moment of delivery of the yeast to the recipient; besides, transport vehicles are equipped with temperature control system, which enables their check (printout from temperature logger).
- transport from Lallemand Polska company can be performed only if delivery documents are complete.

****Agreements with customer different than in specification are possible to take in special cases or based on sales contract.**

*****Characteristic card is available on customer request.**

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