



GENESIS TY SERIES

YOGURT STARTER CULTURES

Description

- ▶ Concentrated freeze-dried blended mesophilic and thermophilic multi strain cultures
- ▶ Optimized combinations of compatible selected bacteriophage resistant strains
- ▶ Activity – the number of viable active cells is 1×10^{10} CFU per gram
- ▶ Strains are not genetically modified
- ▶ TY cultures and products obtained with the help of their fermentative activity possess probiotic medicinal and dietetic qualities: normalize the intestine microflora, lower the level of the serum cholesterol, release the toxins and activate the functioning of the immune system

Packing and storage conditions

- ▶ GENESIS cultures are packed in three layer folio sachets in doses for a fixed amount of milk
- ▶ Cultures for bulk starter preparation – 100, 200 l. They assure the obtaining of an active liquid bulk starter culture.
- ▶ Direct starter cultures for 500, 1000, 1500, 2000, 5000 l
- ▶ Freeze-dried GENESIS cultures preserve their production qualities for a year when stored at $0 \div 10^{\circ}\text{C}$ in dry premises. GENESIS cultures allow transportation without special cooling for no more than 72 hours.



Purity

Coliforms (ISO 4831,ISO 4832)	CfU/g; MPN	Absent
Escherihia coli (ISO 7251)	CfU/g; MPN	Absent
Salmonella species (ISO 6579)	in 25,0 g	Absent
Staphylococcus aureus (6888-1-3)	CfU/g; MPN	Absent
Listeria monocytogenes (ISO 11290-1)	in 25,0 g	Absent
Yeast and moulds (ISO 7954)	CfU/g	< 5

Chemical standards

Pb	< 0,10 mg/kg	Cd	<0,10 mg/kg	As	<1,00 mg/kg
Hg	< 0,03 mg/kg	Cu	< 1,00 mg/kg	Zn	< 1,00 mg

Dosage

Activity units (U) in relation to liters	Amount of milk (mixture) for fermentation (l)
1	100
5	500
10	1000-1500
20	2000-2500
50	5000



Alternative cultures

► TY-3 ► TY-9 ► TY-13 ► TY-14 ► TY-26 ► TY-29

Composition

Streptococcus salivarius sptermophilus
Lactobacillus delbrueckii sp bulgaricus

Application

- Original Bulgarian yoghurt, yogurt and yoghurt based assortments.
- TY cultures form the traditional qualities of Bulgarian yoghurt – strong aroma complex, low viscosity and set structure.
- TY cultures have mild taste and flavor, medium viscosity and creamy structure of the yogurt. They can be used for the production of set yoghurt and yoghurt based assortments.
- TY cultures make possible the preparation of milk products with a variety of taste, flavor and consistency.

Technological modes

Name of the product	Temperature, °C	Fermentation time, hour	pH
Bulgarian Original Yogurt	42 ±1	6÷7	4,7±1
Yogurt	42 ±1	6÷7	4,7±1



Fermentation activity

	0:00	1:00	2:00	2:30	3:00	4:00	4:30	5:00	5:30	6:00	6:30	7:00	8:00
42°C	6,55	6,50	6,36	5,85	5,46	5,18	5,04	4,94	4,86	4,80	4,76	4,72	4,69

42°C	24:00
pH	4,38

Alternative cultures

► TY-30 ► TY-31 ► TY-37 ► TY-38 ► TY-39 ► TY-45
 ► TY-50 ► TY-51 ► TY-55

Compossession

Streptococcus salivarius sptermophilus

Lactobacillus delbrueckii sp bulgaricus

Application

- Yogurt, set yogurt and yoghurt based assortments.
- TY cultures form the mild taste and flavor, medium viscosity and creamy structure of the yoghurt
- TY cultures are designed to improve the quality of low fat products and fruit yoghurt. Final product is characterized with mild acidity, high viscosity, mild taste and flavor, low post fermentation acid formation activity.
- TY cultures form the medium aroma complex, high viscosity and creamy structure of the yoghurt.



Technological modes

Name of the product	Temperature, °C	Fermentation time, hour	pH
Yogurt	42 ±1	5÷6	4,7±1

Fermentation activity

	0:00	1:00	2:00	2:30	3:00	4:00	4:30	5:00	5:30	6:00	6:30	7:00	8:00
42°C	6,55	6,49	6,35	5,83	5,44	5,15	5,02	4,92	4,84	4,78	4,75	4,72	4,68

42°C	24:00
pH	4,38

- The information is based on laboratory experiments and is approximate for manufacturing conditions.
- Nutritional medium used: non-fat reconstituted milk (10% solids), heated for 45 minutes at 99 ° C and standardized to pH 6.6 ± 0.5.
- Each consumer should carry out his own tests based on our recommendations and determine the suitability of the starter culture depending on the quality of raw materials, technology, equipment in each case.