

## Pioneers in the application of structuring cultures

Consumers constantly search the market for new products displaying interesting features on the market, often looking for innovation.

In the mesophilic starter line, Sacco offers innovative blends like starter blends with strains that produce exopolysaccharides.

Their application range covers many different products and technologies, where these mesophilic cultures play a fundamental role.

The addition of EPS-producing cultures in semi-hard cheeses and pasta filata (full-fat, part-skim, and skim milk) for example, is a scientifically demonstrated alternative for increasing performance without changing the physical-chemical and sensory characteristics of your cheeses.

As it is widely known, EPS are long chain, high molecular weight  $\alpha$  and  $\beta$  linkages which may contain homopolysaccharides or heteropolysaccharides (De Vuyst & Degeest, 1999). Sacco offers a series of strains able to produce EPS, namely *Streptococcus thermophilus*, *Lactobacillus bulgaricus* and *Lactococcus lactis* ssp. *cremoris*.



### MOISTURE MANAGEMENT

EPS create a hydrophilic matrix, significantly improving **moisture retention** and drastically reducing **whey off** (syneresis). This ensures optimal texture and extended visual shelf-life, enhancing product appeal and consumer satisfaction.



### STRUCTURE & STABILITY

Our EPS strains actively interact with **caseins** and **whey-proteins** to stabilize and improve the protein gel network. This leads to a more **robust, homogeneous, and stable** product structure, crucial for various fermented dairy applications.



### TEXTURE ENHANCEMENT

EPS significantly enhance the **elasticity** and **plasticity** of the finished product, improving mouthfeel and spreadability. This effect is particularly vital for **reduced-fat formulations**, where EPS naturally replace fat functionalities without compromising quality.

## Why use SACCO SYSTEM EPS cultures

The use of exopolysaccharide-producing cultures in the manufacturing of semi-hard and soft cheeses improves yield and increases moisture. Moreover, the addition of EPS-producing cultures does not affect proteolysis, pH, melting capacity and sensory acceptance.

However, differences can be observed in the rheological parameters such as hardness, chewiness.

The addition of EPS-producing cultures in semi-hard cheeses is a promising way to increase yield without changing the physicochemical and sensory characteristics of the finished product.



BETTER FUNCTIONALITY



BETTER SLICE



PLASTICITY AND ELASTICITY



The data, results and information obtained and quoted in this research are accurate and reliable, and refer only to the specific conditions and environment in which the study was conducted by the Company. Any tests performed under conditions other than those in which the research was conducted by the Company may generate different results, data or outcomes. In such cases, the Company cannot be held responsible for any discrepancies or deviations.

The introduction of the Product into markets outside the European Union is the sole responsibility of the purchaser. The latter must ensure that the Product fully complies with the laws and regulations in force in the destination territory and that it meets all the requirements necessary for its legal marketing.

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