



VARIOLAC® 850

The new free-flowing sweet dairy bulking agent



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With VARIOLAC® 850, the new, improved whey permeate from Arla Foods Ingredients, we introduce a sweet bulking agent which is free-flowing, and yet provides all the benefits normally seen in bulking agents. VARIOLAC® 850 dissolves fast and flows easily. It is a cost-saving source of dry milk solids which provides manufacturers with a great opportunity to optimize bakery, confectionery, as well as dairy and food recipes.

The name derives from the fact that VARIOLAC® 850 holds 85 % lactose. This contributes to the mild, appealing flavour, which is one of the major advantages compared to other products.

Facts – Benefits

- Free-flowing
- High wettability
- Quick dissolution
- Cost-efficient

The natural choice

VARIOLAC® 850 is the natural choice for use as a dairy bulking agent in food applications, since the product does not have the mineral-like taste typical of other permeate products and the sweet dairy flavour profile ensures optimum usage at a much higher dosage. It can easily replace other more expensive filler ingredients, such as pure lactose, whey powder, malto-dextrin and dextrose. VARIOLAC® 850 can be used in a large variety of applications such as bakery, fillings, breads, cakes, cookies and confectionary which are in high demand in South America.

Processing efficiency

One of the major advantages with VARIOLAC® 850 is the low hygroscopicity. VARIOLAC® 850 is maintaining its free-flowing powder qualities in storage for considerably longer time.

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Instantly dissolving

VARIOLAC 850 is a free-flowing powder and dissolves instantly when mixed with water or other liquids.

On food processing lines, manufacturers benefit further from efficient product changeovers as no residue of the improved permeate accumulates inside the machinery. Higher production capacity can be directly linked to the reduced need for cleaning.

Manufactured in Argentina

VARIOLAC® 850 is manufactured by ARLA FOODS Ingredients - AFISA in Porteña plant located in Argentina. AFISA is a joint venture between Arla Foods Ingredients of Denmark with production facilities in 18 countries worldwide, and SanCor Cooperativas Unidas Limitada (SanCor C.U.L) a leading dairy processor in Argentina. Arla Foods Ingredients supplied the technology and know-how for producing specialized milk-based ingredients, while SanCor C.U.L. supplies the high quality raw materials.



The Argentina plant

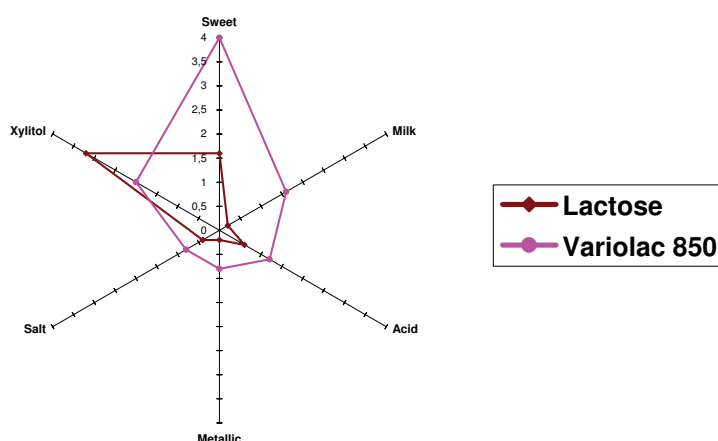
The AFISA plant has been extended to incorporate a new powder processing line which is able to produce added-value whey and mixed protein products, including whey permeate. Whey permeate powder production is achieved through drying liquid permeate, and enables easier transportation and storage.

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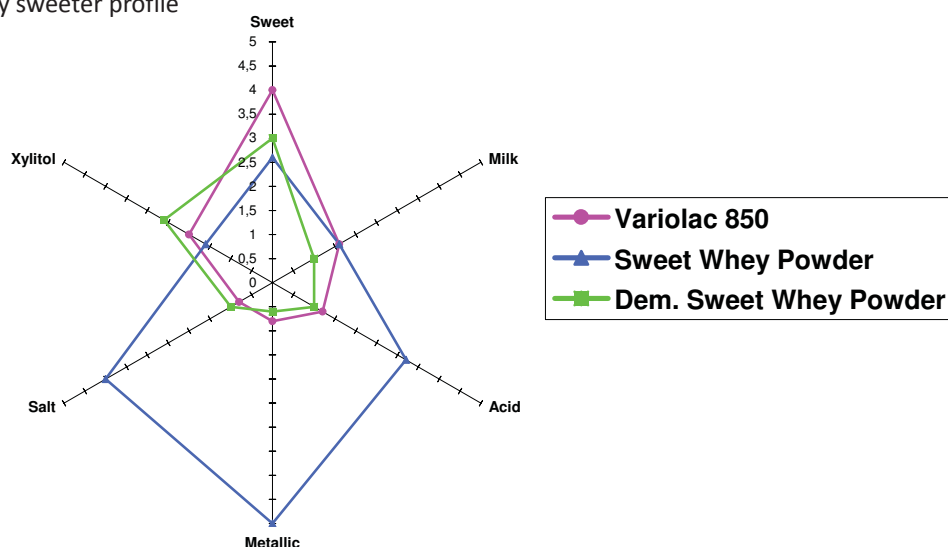
VARIOLAC® 850 vs. LACTOSE

- VARIOLAC® 850 is a cost-efficient dairy replacer for lactose in many food applications
- In a one-to-one sensorial taste comparison VARIOLAC® 850 will appear more sweet due to the flavour enhancement effect of the ash
- Replacement often requires a substitution greater than 1:1. Sugar levels may need to be adjusted as VARIOLAC® 850 carries a slightly sweeter profile



VARIOLAC® 850 vs. Sweet Whey Powder/Demineralised Whey Powder

- VARIOLAC® 850 is a cost-efficient dairy replacer for sweet whey powder and/or demineralised whey powder
- In a one-to-one sensorial taste comparison VARIOLAC® 850 will appear less salty and acidic, and a sweeter than sweet whey powder. In a similar taste comparison, there are only minor differences between VARIOLAC® 850 and demineralised whey powder
- Replacement often requires a substitution greater than 1:1. Sugar and/or salt levels may need to be adjusted as VARIOLAC® 850 carries a slightly sweeter profile



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Recommended usage in Bakery

VARIOLAC® 850 provides bakers with an alternative to whey powder, maltodextrin and lactose. It delivers a pleasant and mild dairy note and has unique flavour binding and enhancing capacities. When used in bread making, the product will contribute to the Maillard reaction resulting in the enhancement of crust browning.

Cakes and cookies

- A light sweet, bulking agent especially for applications where higher solids are desired without excess sweetness
- VARIOLAC® 850 provides a milky flavour to the cakes & cookies
- VARIOLAC® 850 acts as flavour enhancer due the salt content
- VARIOLAC® 850 has a strong affinity for flavours and is binding the volatile flavour components, resulting in less flavour-loss during processing and storage
- VARIOLAC® 850 is a very efficient browning agent

Bread and rolls

- VARIOLAC® 850 will contribute to the maillard reaction and caramelisation during baking, resulting in a bread having an enhanced browning of the crust
- The maillard browning and caramelisation of VARIOLAC® 850 contribute to toasted brown and bunt sugar notes
- VARIOLAC® 850 provides a sweet, milky flavour to the bread

Custard, fillings and icing

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Recipe

Wire Cut Butter Cookies

Ingredients	Sweet Whey	Demineralized Sweet Whey	VARIOLAC® 850
Wheat flour	276.5	276.5	276.5
Shortening	277	277	277
Cake flour	185	185	185
Icing sugar	185	185	185
Water	57.9	57.9	57.9
Sweet Whey	11.6		
Demineralized Sweet Whey		11.6	
VARIOLAC® 850			11.6
Baking soda	4	4	4
Salt	0	0	0
Total	1000	1000	1000

Procedure

- Mix on the lowest speed for 30 seconds to incorporate butter and sugar. Increase to medium speed and cream for 2 minutes.
- Add water and beat for 2 minutes at medium speed.
- Slow add combined dry ingredients (flours, baking soda and whey). Scrape sides of the bowl and mix for 2 minutes at low speed.
- Sheet to 4 mm thickness and cut into 60 mm circle with a cutter.
- Bake in convection oven at 190 C during 10 min.
- Cool down 1 hr and pack.

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Arla Foods Ingredients

Arla Foods Ingredients is a leading supplier of nutritional and functional milk-based ingredients to the global food industry. VARIOLAC® 850 is distributed by the permeate and lactose business area, dedicated to developing value-added products. Arla Foods Ingredients is constantly on the lookout for new and better ways to provide its customers with better solutions and tools to meet any production-related challenge.

As a part of Arla Foods, one of Europe's principal dairy groups, Arla Food Ingredients has production facilities in Denmark, Sweden, Argentina and Germany, application centers in Denmark and Argentina and approximately 1,600 employees world-wide.





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