

NEW POSSIBILITIES FOR AERATED CONFECTIONERY FILLINGS

Whipped confectionery fillings are often based on egg white. With CAVAMAX® W6 alphasdextrin, WACKER now offers a whipping aid that can replace or reduce the use of egg white for a novel range of confectionery fillings. Whipping with CAVAMAX® W6 works in fat-based and fat-free products and even under acidic conditions, making it the ideal whipping aid for the preparation of fruit and dairy-based fillings. Furthermore, these applications can be considered vegetarian, as CAVAMAX® W6 could replace egg whites completely.

Whipped egg white is often used as the base for whipped confectionery fillings. Egg white shows heat and acid sensitivity, is potentially allergenic and cannot be used along with fatty ingredients.

The Perfect Solution: CAVAMAX® W6

CAVAMAX® W6 is a naturally occurring cyclic oligosaccharide, enzymatically produced from starch. It is a well-defined, chemically pure substance with beneficial technical properties. This non-digestible, yet fully fermentable, water-soluble dietary fiber allows you to aerate even fatty and acidic products very efficiently – and, if you wish, to create a 100% vegetarian product.

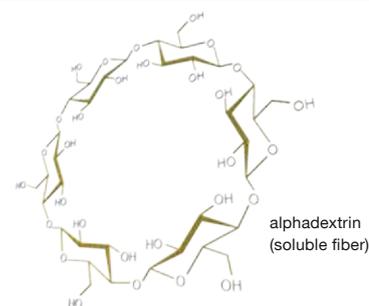
Egg-White Replacement

CAVAMAX® W6 allows you to significantly reduce or even replace the use of egg white in your confectionery filling. Fillings like nougat or marshmallow cream are commonly prepared with egg white, which can now be easily partially or even entirely replaced with CAVAMAX® W6. As a dietary fiber it perfectly suits current health trends.

Key Benefits

- Purely vegetarian
- Can replace/reduce the use of egg white
- Suitable for low pH formulations
- Can whip fat-free and fat-based products
- No emulsifier required
- No E-number
- No cholesterol
- High and stable overrun
- Dietary fiber
- Non-allergenic
- GRAS status

Figure 1



WACKER is a leading manufacturer of cyclodextrins and offers large volumes at food-grade quality.



Procedure:

1. Mix water and corn syrup in a kitchen-aid bowl.
2. Prepare a dry blend of CAVAMAX® W6, whey protein and xanthan gum.
3. Slowly add the dry blend to the aqueous mixture on medium speed for 4 min.
4. Whip on high speed for 6 minutes. Check specific gravity (target 0.2–0.3).
5. After frappé has been whipped, weigh correct amount into mixing bowl.
6. Weigh syrup ingredients (prepared in excess) directly into electric skillet (235.0 g corn syrup, 447.0 g sugar, 50.0 g water and 4.7 g salt).
7. Cook the contents of the skillet at the desired cook temp (approx. 130 °C / 260 °F). Monitor Brix. Boil to 89 Brix.
8. Melt fat (approx. 60 °C / 130–140 °F) in microwave oven.
9. Add hot syrup (331.25 g) in a thin stream slowly using leaf mixer on medium speed until incorpo-rated.
10. After syrup and frappé have been mixed, re-duce to lowest speed and add remaining in-gredients (powdered sugar, cocoa and fat).
11. Mix at low speed until batch comes together (fat is well mixed in).
12. Pour into loaf pan to desired thickness.
13. Leave to rest for 10 minutes.
14. Wrap in plastic film and place in the hot box at 38 °C / 100 °F overnight.

Recipe Suggestion for a Vegetarian Nougat Filling

Ingredient Name	% Based	Per 500 g Batch
Frappé		
CAVAMAX® W6	2.50%	12.50 g
Water	7.95%	39.75 g
Whey protein	0.25%	1.25 g
Xanthan gum	0.05%	0.25 g
Corn syrup, 63DE	16.40%	82.00 g
Sub-total		135.75 g
Syrup		
Corn syrup, 63DE	22.43%	112.15 g
Sugar, granulated	42.70%	213.50 g
Water	0.67%	3.35 g
Salt	0.45%	2.25 g
Sub-total		331.25 g
Additional ingredients		
Confectioners' sugar	1.50%	7.50 g
Hydrogenated palm kernel oil	3.60%	18.00 g
Cocoa powder	1.50%	7.50 g
Total	100.00%	500.00 g

What Can CAVAMAX® W6 Do for You?

CAVAMAX® W6 can be used to reduce or replace egg white. It represents a fat and pH-tolerant vegetarian alternative for a large variety of whipped food applications. Protein-free, fat-free or fat-reduced food products can be aerated even at low pH.

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