

CAVAMAX® W6 – DIETARY FIBER FOR SALAD DRESSINGS AND MAYONNAISE

Description

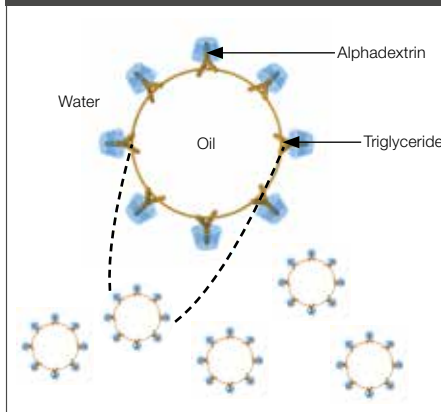
Mayonnaise and dressings are oil-in-water emulsions that require the use of an emulsifier. In normal mayonnaise preparations and salad dressings, egg yolk is used for this purpose. CAVAMAX® W6 alphasdextrin represents a cholesterol-free, vegetarian alternative for either completely or partially replacing egg yolk or other emulsifiers in mayonnaise and dressing applications.

Functional Properties

CAVAMAX® W6 is a naturally occurring, soluble dietary fiber, enzymatically derived from starch. It forms stable oil-in-water emulsions by interacting with fatty acids from triglycerides. The resulting triglyceride CAVAMAX® W6 structure efficiently stabilizes oil-in-water emulsions at low dosages. CAVAMAX® W6 can easily be combined with common stabilizing hydrocolloids, such as xanthan or guar gum and starches.



CAVAMAX® W6 – Stabilization of Oil-in-Water Emulsions



Oil-in-water emulsions can be stabilized by adding CAVAMAX® W6 alphasdextrin.

CAVAMAX® W6 – Key Benefits in Mayonnaise and Dressing Applications

- Emulsifying dietary fiber
- 100% vegetarian-grade
- Cholesterol-free
- Excellent heat, acid and shear stability
- No E number
- Non-allergenic
- Excellent mouthfeel and texture

Sample Formulations for Mayonnaise and Salad Dressing

| | Mayonnaise | | | Salad Dressing |
|--------------------|------------|-----|-----|----------------|
| | 30% | 50% | 70% | 20% |
| Canola oil | 30 | 50 | 70 | 20 |
| Sugar | 4.0 | 4.0 | 1.9 | 4.0 |
| White vinegar, 10% | 3.5 | 3.0 | 2.5 | 5.0 |
| Modified starch | 2.5 | 1.6 | 0.0 | 1.5 |
| CAVAMAX® W6 | 2.5 | 1.6 | 1.0 | 1.5 |
| Salt | 1.0 | 1.0 | 0.7 | 1.0 |
| Mustard | 1.0 | 1.0 | 1.0 | 2.0 |
| Xanthan | 0.1 | 0.1 | 0.1 | 0.2 |
| Guar gum | 0.1 | 0.1 | 0.1 | 0.2 |
| Potassium sorbate | 0.1 | 0.1 | 0.1 | 0.1 |

Add water to 100%



Mayonnaise preparation with 1.6% CAVAMAX® W6 and 50% canola oil (%w/w).

Procedure

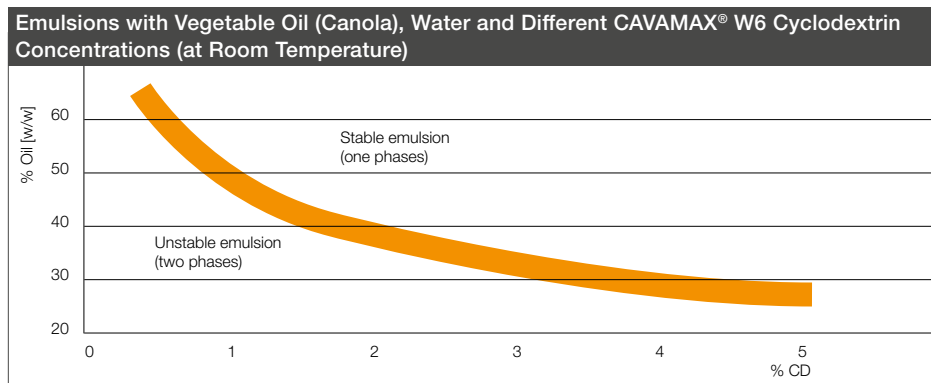
1. Mix CAVAMAX® W6, salt, sugar (and if part of the recipe, modified starch, xanthan, guar gum), potassium sorbate and water to obtain a homogeneous solution (using a Silverson, 30 sec. / 5,000 rpm).
2. Add vinegar and mustard/spices to the water phase and mix.
3. Add oil slowly to the water phase under continuous mixing (using a Silverson, 4 min. / 5,000 rpm).

Formulation Flexibility

Emulsions prepared with CAVAMAX® W6 are very stable over a temperature range of +4 to +40 °C. Excellent shear stability and mouthfeel are other characteristics of mayonnaise prepared with CAVAMAX® W6.

The mouthfeel can be adjusted in several ways:

1. Stable emulsions can be prepared over a large range of oil concentrations (see graph).
2. In preparations with increasing oil content, less CAVAMAX® W6 is needed to achieve the same viscosity.
3. Decreasing the pH of a preparation can reduce its viscosity.



What Can CAVAMAX® W6 Do for You?

WACKER CAVAMAX® W6 gives you a vegetarian-grade, cholesterol-free and non-allergenic solution for your mayonnaise and dressing preparations. This dietary fiber will not impart any taste to the product does not require an E number.

Your emulsions made with CAVAMAX® W6 will have an excellent mouthfeel and exhibit very good heat and shear stability. CAVAMAX® W6 – the emulsifying dietary fiber ideally suited to your mayonnaise and dressing preparations.



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