

APPLICATION INFO SHEET  
VEGAN SAUCES, DIPS AND SPREADS | CAVAMAX® W6

# CAVAMAX® W6 – IMPROVE YOUR VEGAN SAUCES, DIPS AND SPREADS

Increasing health awareness and a growing demand for sustainable food combined with ethical and food safety aspects are driving the demand for plant-based food products. The trend has recently also reached delicatessen products such as emulsified sauces, dips and spreads. With consumers increasingly looking for plant-based alternatives, food manufacturers are in need of innovative functional food ingredients that can provide the required product properties for manufacturing high-quality vegan sauces and spreads. Proper emulsification of the oil-in-water emulsion is necessary to obtain the texture, rheology and sensory characteristics of animal-based products.

With CAVAMAX® W6 alpha-dextrin, WACKER offers a fully vegan ingredient to bring your plant-based product to the next level. Made by enzymatic conversion of starch, CAVAMAX® W6 is produced in a patented process from renewable raw materials. The cyclic oligosaccharide consists of six glucose molecules and offers a wide range of benefits to the food industry.

### “In-Situ” Emulsification

It is their unique three-dimensional structure that makes cyclodextrins the ideal choice for emulsified products. The hydrophobic cavity of the donut-shaped molecule can interact with lipophilic components of the food matrix e.g. with fatty acids from triglycerides (see Figure 1).

Figure 1: CAVAMAX W6® Interacts with Oil “In Situ”

$\alpha$ -Cyclodextrin + triglyceride = in-situ complex

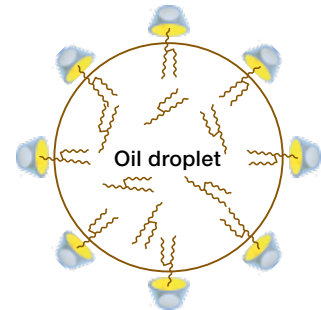
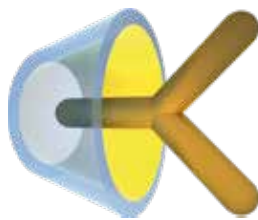
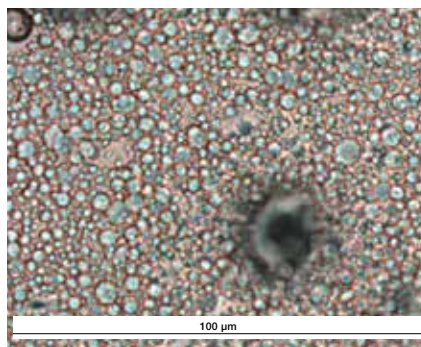
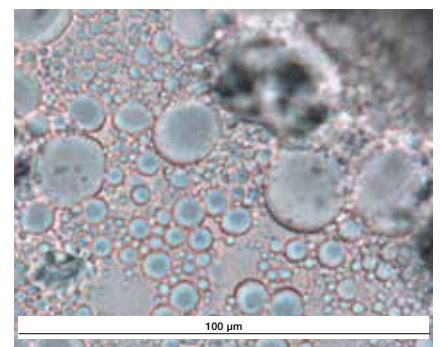


Figure 2: Optical Microscope Images



Droplet size with CAVAMAX® W6: 1 – 5 µm



Droplet size of control: 1 – 22 µm

Optical microscope images of a spread formulation with and without CAVAMAX® W6 (20x magnification).

### Mouthfeel Improvement

Besides these benefits, CAVAMAX® W6 improves the organoleptic properties of emulsified sauces, dips and spreads. The fine, homogeneous distribution of fat droplets generated with CAVAMAX® W6 ensures an excellent, creamy and full-bodied mouthfeel, even for low-fat variants (see Figure 2).

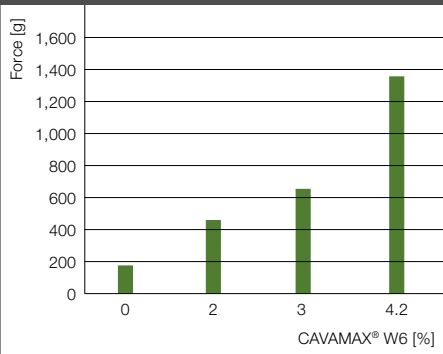
### Advantages of CAVAMAX® W6

- Vegan, kosher and halal
- Free of all major allergens
- Palm oil free
- No ADI restrictions
- Clean label: no E-number
- Soluble dietary fiber (EU health claim)
- Available as a free-flowing powder

**Spreadability**

Depending on the CAVAMAX® W6 dosage and the oil-to-water ratio, product viscosity and spreadability can easily be adjusted as desired. Low dosages lead to a product consistency comparable to that of creamy sauces, whereas higher dosages enable products with higher viscosity and preferred firmness and spreadability (see Figure 3).

**Figure 3: Effect of CAVAMAX® W6 on Product Spreadability**



**Key Benefits in Sauces, Dips and Spreads**

- Excellent mouthfeel and texture
- Product viscosity and spreadability can be adjusted as required
- Facilitates vegan formulations
- Easy to dose and to integrate into compound systems

# VEGAN RECIPES WITH CAVAMAX® W6

**Curry Spread**

Ingredients	[%]
Water	53.8
Vegetable oil (e.g. canola oil)	23.0
Soy protein concentrate	8.0
Native starch (e.g. pea starch)	6.0
<b>CAVAMAX® W6</b>	<b>3.0</b>
Sugar	2.0
Salt	1.4
Inulin	1.3
Maltodextrin	1.3
Curry flavor	0.2

**Truffle Sauce**

Ingredients	[%]
Water	58.9
Vegetable oil (e.g. canola oil)	21.5
Soy protein concentrate	7.5
Native starch (e.g. pea starch)	3.7
Maltodextrin	3.0
Sugar	1.8
Salt	1.4
Inulin	1.2
<b>CAVAMAX® W6</b>	<b>0.9</b>
Truffle flavor	0.1



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