technical specification

HI-CAP® 100 Starch

HI-CAP® 100 modified food starch is derived from waxy maize and is especially suited for the encapsulation of flavors, clouds, vitamins, and spices at high oil loading. It is characterized by excellent resistance to oxidation. HI-CAP® 100 is recommended as a total replacement for expensive encapsulating agents such as gum arabic and gelatin.

Chemical and Physical Properties

	Min.	Max.
Moisture %		14
pH (9% w/w slurry)	3.5	4.5
Flow Viscosity secs	7.5	9.5

Microbiological Limits

	Max.
Total Plate Count/g	10,000
Yeast/g	200
Mold/g	200
E. coli	Negative
Salmonella	Negative

While the information below is typical of the product, it should not be considered a specification.

Physical Appearance

	Typical
Colour	White
Form	Fine Powder

Nutritional Data/100g

	Typical
Calories, Kcal	379
Calories from Fat	0
Total Fat, g	<0.1*
Saturated Fat, g	<0.08*
Trans Fat, g	<0.01
Cholesterol, mg	0
Sodium, mg	372
Total Carbohydrate, g	94.8
Dietary Fiber, g	0
Total Sugars**, g	46
Added Sugars, g	0
Other Carbohydrate, g	48.8
Protein, g	<0.1*
Vitamin D, mcg	0
Calcium, mg	37
Iron, mg	<0.2*
Potassium, mg	<10*
Ash, g	0.8

* Not present in level of quantification

** 'Total Sugars' in this product may contribute to 'Added Sugars' for nutrition labeling purposes in the final consumer product.

Certification

Kosher

Halal

Packaging and Storage

HI-CAP® 100 is packaged in multi ply kraft paper bags. HI-CAP® 100 should be stored in a clean, dry area at ambient temperature and away from heavily aromatic material.

Shelf Life

The best before date for HI-CAP® 100 is 24 months from the date of manufacture.

Regulatory Data

Source	Waxy Corn
Labelling	Food Starch- Modified
E#	1450
INS#	1450

Features and Benefits

A unique feature of HI-CAP® 100 modified starch when compared to other encapsulating agents such as gum arabic is its ability to form very stable oil-in-water emulsions. The fine particle size of the emulsion results in reduced losses during spray-drying. The lower viscosity of HI-CAP® 100 permits the preparation of emulsions at higher solids. These can be spray-dried at faster rates because less water has to be evaporated. This trait also results in lower energy costs. The compatibility of HI-CAP® 100 with water insoluble substances permits the preparation of spray-dried powders with a higher level of active ingredients. The excellent film forming ability of HI-CAP® 100 further reduces the losses of volatile active ingredients during spray-drying and storage.

Effective Date: September 24, 2021

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