



## N-DULGE® CI 05730303

N-DULGE® CI modified starch is derived from tapioca and is one of a family of dairy co-texturizers from Ingredion under the N-DULGE® product line. These co-texturizers provide the tools and flexibility for food product developers to create a range of creamy, rich and indulgent textures in dairy products that will drive customer preference and build brand equity. N-DULGE® CI modified starch enhances the mouth-coating and organoleptic textural attributes of a product and contributes to a smooth, creamy and slightly flow-able product texture. This product is produced under Ingredion Incorporated's TRUETRACE® Identity Preserved Program for Non-GM products.

### Chemical and Physical Properties

	Min.	Max.
Moisture, %	-	14.0
pH (20% w/w slurry)	5.0	7.5
Viscosity (CML-M108)		
Peak, MVU	480	820
End, MVU	100	300

### Physical Appearance

	Typical
Color	White to Off-White
Form	Fine Powder

### Screen Test

	Typical
% thru U.S.S. #100	>95
% thru U.S.S. #200	>85

### Microbiological Limits

	Max.
Total Plate Count/g	10,000
Yeast/g	200
Mold/g	200
<i>E. coli</i>	Negative
<i>Salmonella</i>	Negative
Meets NFPA specification for thermophilic bacteria.	

### Nutritional Data/100 g

	Typical
Calories	361
Calories from fat	0
Total Fat, g	<0.1*
Cholesterol, mg	0
Sodium, mg	56
Total Carbohydrate, g	90.2
Dietary Fiber, g	<0.1*
Total Sugars, g	<0.1*
Added Sugars, g	0
Other Carbohydrate, g	90.2
Protein, g	<0.1*
Vitamin D, mcg	0
Calcium mg	46
Iron, mg	<0.4*
Potassium, mg	<20*
Ash, g	0.2

\* Not present at level of quantification.

### Certification

Kosher pareve  
Halal

### Packaging and Storage

N-DULGE® CI modified starch is packaged in multi ply kraft paper bags with a net weight of 55 lbs. N-DULGE® CI modified starch should be stored in a clean, dry area at ambient temperature and away from heavily aromatic material.

### Shelf Life

The best before date for N-DULGE® CI modified starch is 24 months from the date of manufacture.

### Regulatory Data

Source Tapioca

### United States

Meets FCC (Food Chemical Codex) requirements.  
Labeling Food Starch-Modified

### Canada

CFDA Regulation B.16.100, Table XIII  
Labeling Modified Tapioca Starch

### Features and Benefits

Adds moderate to a high degree of mouth coating and has slow meltaway, reminiscent of caramel type products.  
Smooth, slightly flow-able texture  
Minimizes syneresis  
Resistant to acid, heat and high shear.  
Excellent stability and shelf life  
Versatile, cost effective texturizer  
May replace some dairy solids, contributing to additional cost savings  
This product is produced under Ingredion Incorporated's TRUETRACE® Identity Preserved Program for non-GM products.

Effective Date: July 7, 2020

Next Review Date: July 7, 2023

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