



SMOOTH, CREAMY SUGARFREE ICECREAM

BRIEF

Develop a **“No Added Sugar”** Natural Sweetener blend for substituting 15% Sugar in Premium Ice-creams (38-40% total solids) with indulgent texture and enhanced functional benefits

SOLUTION

ArboEDGE IC007 was developed as a 1:1 Sugar Substitute sweetening solution to create a smooth, creamy textured Ice-cream with a clean taste profile

ArboEDGE IC007 is a high-performance Stevia based sweetener blend that was especially developed for use in premium ice creams to substitute Sugar and other artificial sweeteners like Maltitol. It has been designed to deliver the following benefits:

- High quality sweetness from Stevia
- Ease of Substitution (1:1) in a wide range of Ice cream recipes
- Smooth & Creamy texture giving an indulgent mouthfeel while enabling up to 2% fat reduction (optimising cost and total calories)
- Clean label claims like **“Naturally Sweetened”**, **“100% Natural”**, **“No added sugar”**, **“Sugar free”** **“No Artificial Ingredients”**, **“No Artificial Sweeteners”**, **“Non GMO”** etc
- Enhanced functional claims like **“Low Glycaemic Index”**, **“Lower Calorie”** **“Enriched with Prebiotics”**, **“Lower Fat”**



ArboEDGE IC007 is a proprietary blend comprising:

- 1) Natural Stevia Extracts
- 2) Prebiotic Fibers
- 3) Erythritol
- 4) Vegetable Glycerin
- 5) Natural Flavors

All the ingredients in the blend are 100% Natural, 100% Safe & Non GMO

ArboEDGE vs MALTITOL vs SUGAR

PER 100 GMS	SUGAR	MALTITOL	ArboEDGE IC007
Calories	400	210	135
Net Carbs	100	50	16
Glycaemic Index	65	35-50	4
Carbohydrates	100	100	99
Natural	Yes	No	Yes
Fat Reduction	No	No	Yes
Prebiotic Fiber	No	No	Yes
Sweetness Factor (Sucrose Eqv)	1X	0.9X	1X
Total Solids	100	100	100
Laxative Effects	No	Yes	No

BENCHMARKING RECIPE

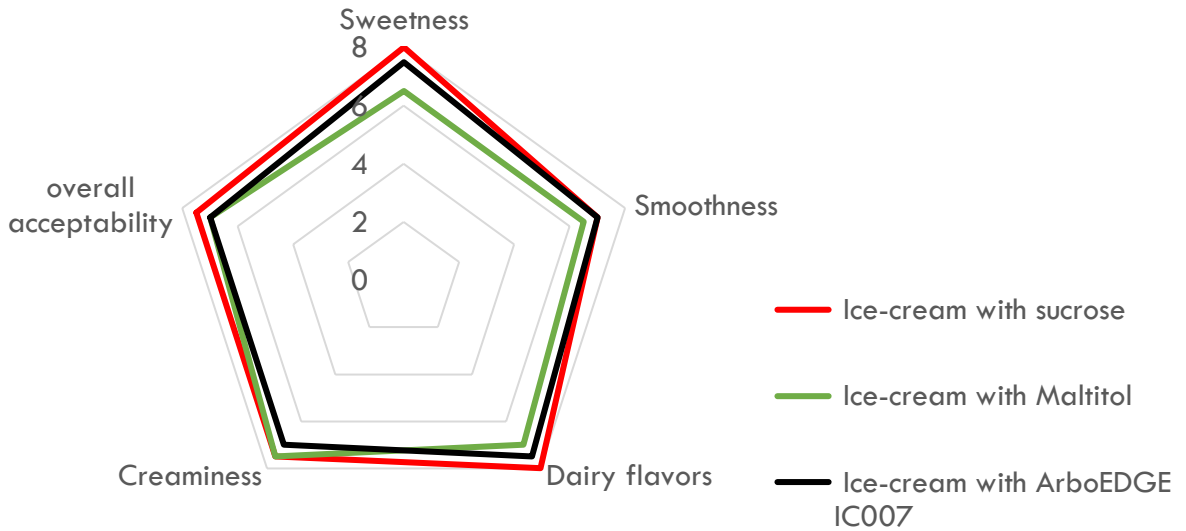
To test the taste and functional performance of the IC007 sweetening solution, we made icecream with the following overall composition with 38%-40% Total Solids and 15% Sucrose Equivalent Sweetness.

RECIPE INGREDIENTS	%	SOLIDS COMPOSITION	%
Milk Cream (25% fat)	30.00	Milk Fat	12.50
Milk powder	20.00	Milk SNF	10.46
ArboEdge IC007	15.00	Stabilizer	00.13
Natural Flavor – Vanilla	00.25	ArboEDGE IC007 (Sweetener Solution)	15.00
Purified Water	34.08	TOTAL SOLIDS	38.58
Stabilizers	00.13		
TOTAL	100.00		



SENSORY PROFILE

3 variants of the ice cream with the same composition except the sweetening solution were prepared and benchmarked against each other on various sensory attributes in taste trials by a trained panel of 10 individuals at Arboreal's global application development centre and the following results were obtained:



NUTRITION PROFILE

Ice-cream with Sugar (Before)

Nutrition Facts	
100 servings per container	
Serving size	(100g)
Amount Per Serving	
Calories	220
% Daily Value*	
Total Fat 12g	15%
Saturated Fat 0g	0%
Total Carbohydrate 21g	8%
Dietary Fiber 0g	0%
Total Sugars 15g	
Includes 15g Added Sugars	30%
Protein 4g	8%

Not a significant source of cholesterol, vitamin D, calcium, iron, and potassium

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Ice-cream with ArboEDGE IC007 (After)

Nutrition Facts	
100 servings per container	
Serving size	(100g)
Amount Per Serving	
Calories	180
% Daily Value*	
Total Fat 12g	15%
Saturated Fat 0g	0%
Total Carbohydrate 21g	8%
Dietary Fiber 6g	21%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Protein 4g	8%

Not a significant source of cholesterol, vitamin D, calcium, iron, and potassium

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Deeper calorie reductions are also possible by adjusting the overall ingredients composition and reducing the Fat %ge down to 10%

