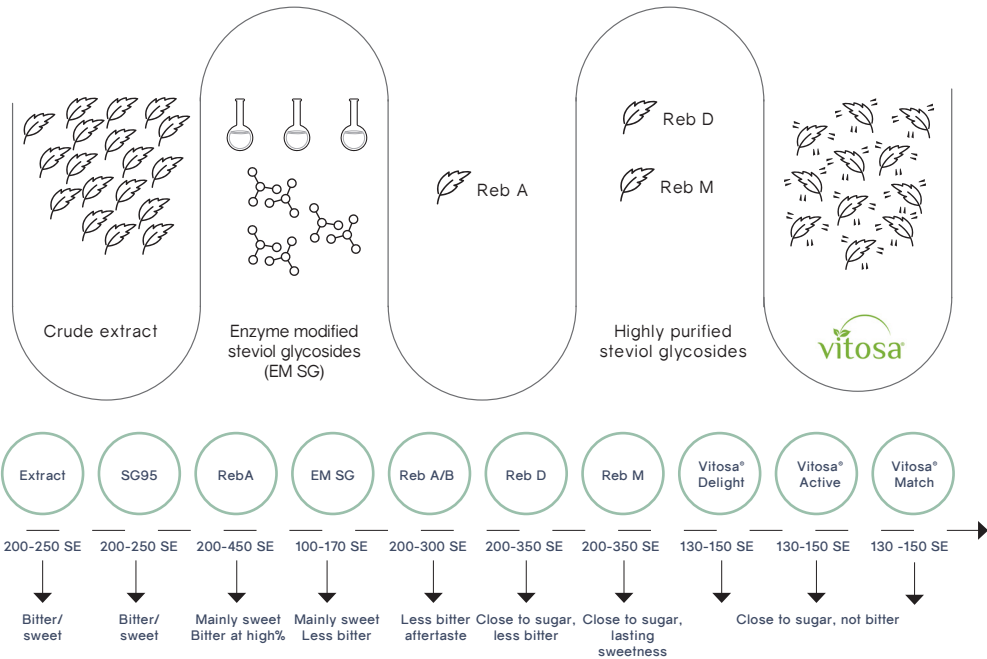




VITOSA®

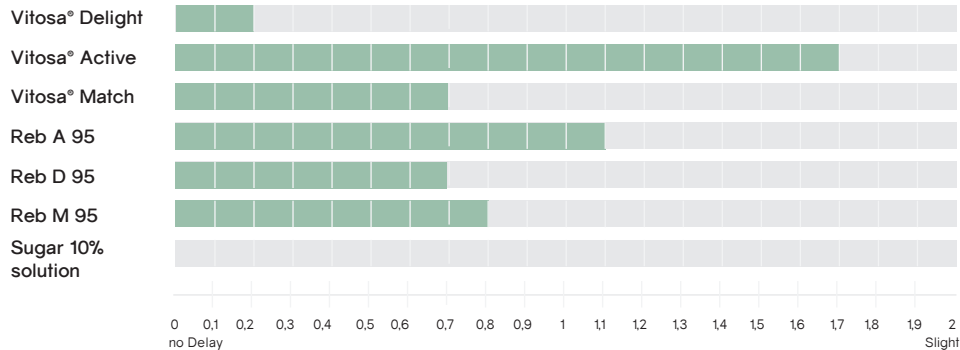
FOR MAXIMUM SWEETNESS

THE EVOLUTION OF A GREAT-TASTING STEVIA



SWEETNESS ONSET

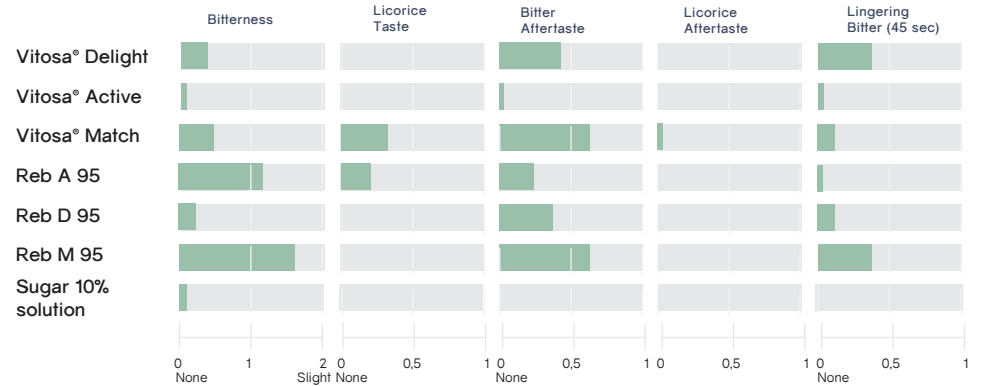
In high intensity sweeteners, sweetness is experienced with a delayed-onset which generally is disliked, mainly because it is unfamiliar compared to sucrose. The onset of sweet perception in Vitosa® products is very close to sugar.



Sensory comparison of Vitosa® product line and purified steviol glycosides to a 10% sugar solution. HB Natural Ingredients 2018 data on file.

NO BITTERNESS

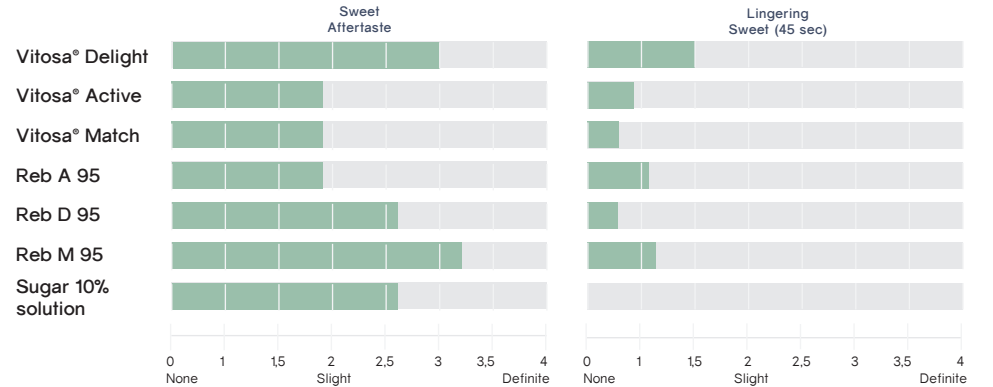
The common Stevia-based sweeteners possess bitter notes and bitter aftertaste, especially at high concentrations. Vitosa® Active is lacking of bitter notes and bitter aftertaste and all Vitosa® products are lacking in bitterness even at high sugar equivalents.



Sensory comparison of Vitosa® product line and purified steviol glycosides to a 10% sugar solution. HB Natural Ingredients 2018 data on file.

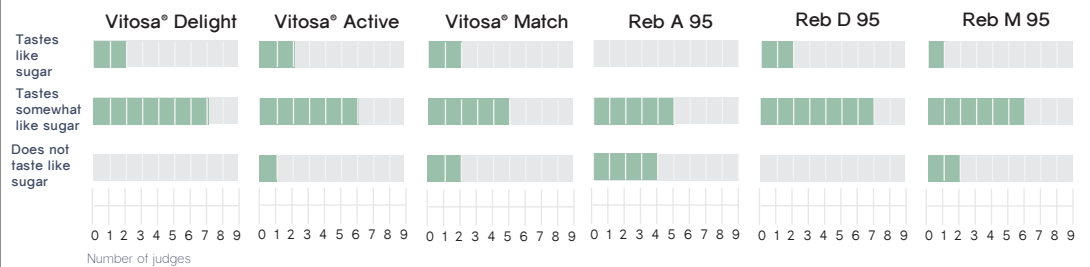
LINGERING SWEETNESS AND SWEET AFTERTASTE

Vitosa® Active and Vitosa® Match have a reduced lingering sweet aftertaste compared to other pure Stevia fractions resulting very similarly to a 10% sugar solution—and with a similar sweet aftertaste.



Sensory comparison of Vitosa® product line and purified steviol glycosides to a 10% sugar solution. HB Natural Ingredients 2018 data on file.

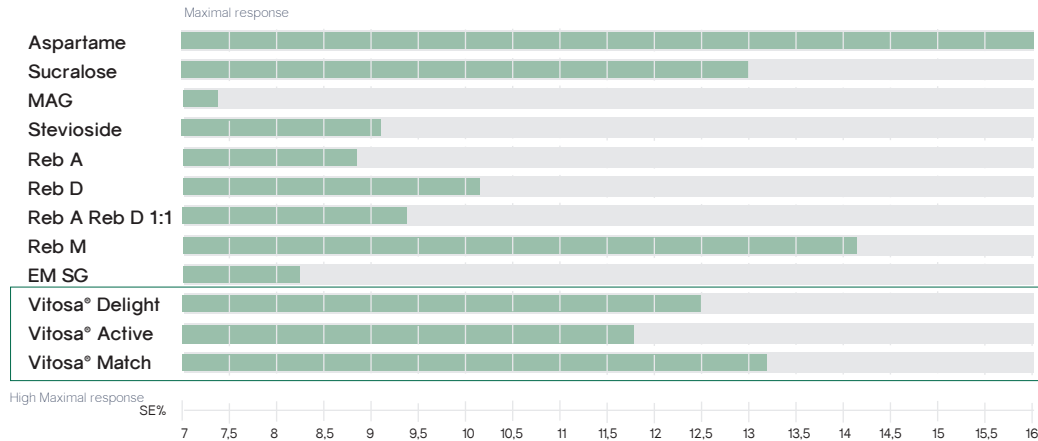
SUGAR-LIKE TASTE



Blinded overall sugar-like taste evaluation given by nine independent judges trained in flavor profiling and descriptive analysis. HBNI Vitosa® and HBNI purified steviol glycosides were dosed in a water solution providing 10% sugar equivalence at room temperature.

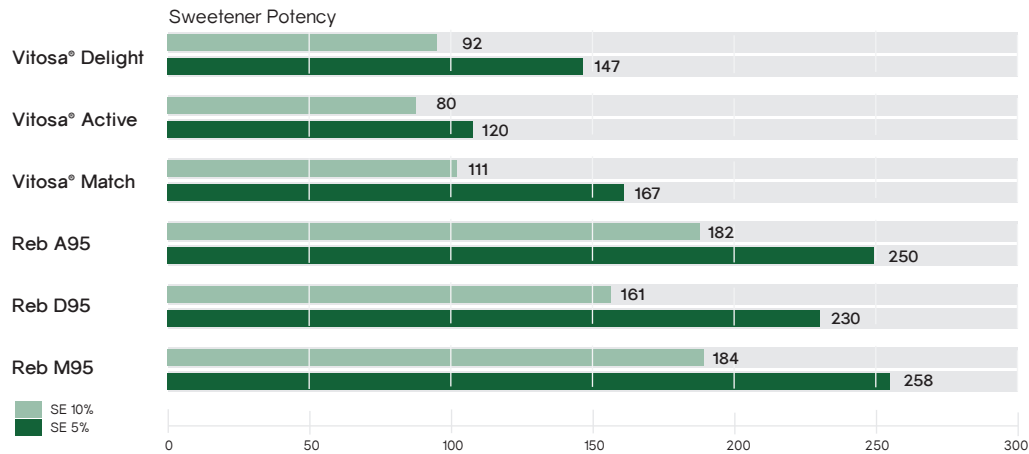
MAXIMAL RESPONSE

Vitosa® series possess a very high sweetness potency and each Vitosa® product can be used alone to deliver over 10% of sucrose equivalence.



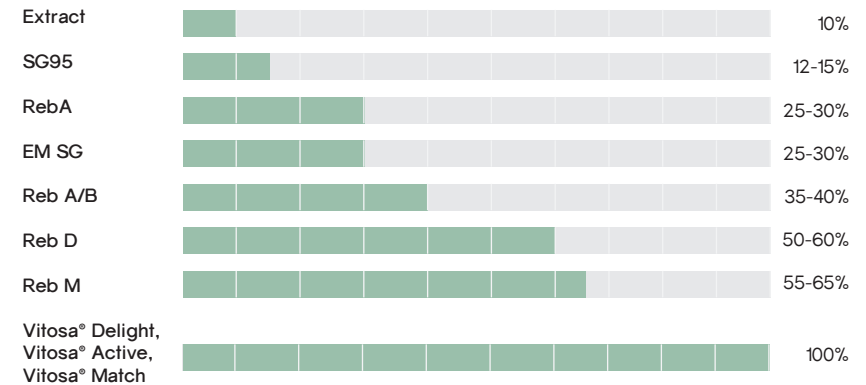
HOW MUCH SWEETNESS CAN VITOSA® DELIVER?

With a Sweetener Potency 80-170 times sugar's, Vitosa® Delight, Vitosa® Active and Vitosa® Match are suitable for use in the most challenging food and beverage sugar replacement formulations, even at room temperature.



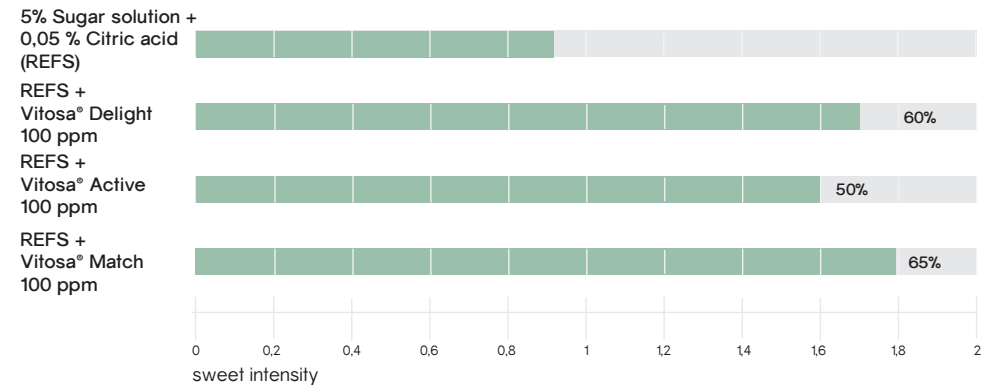
SUGAR REDUCTION/REPLACING CAPABILITY IN F&B

Vitosa® Delight, Vitosa® Active and Vitosa® Match can be used to replace over 10-12% of sugar, without providing bitterness.



VITOSA® AS SWEETENER ENHANCER

Vitosa® natural flavors are synergistic with a wide range of natural sugars and high-intensity sweeteners in sugar-reduced and sugar-free food and beverage products. They improve the overall sensory performance of natural and artificial high-intensity sweeteners by increasing the sweetness perception for up to 60% in water systems, which provides full-bodied mouthfeel and improved flavor and aroma. Vitosa® is also synergistic with low calorie and slow release carbohydrate sweeteners and rare sugars.



HBNI, sweetener comparison study, 2018

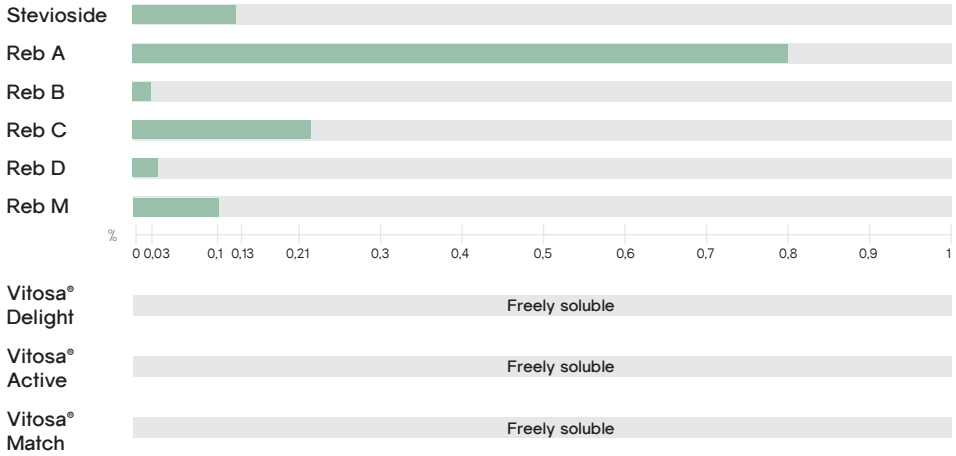
LEVELS OF USE WHEN
USED AS NATURAL
FLAVOUR.

LEVELS OF USE AS TABLE
TOP AND GENERAL
PURPOSE SWEETENER.

For use as a table top and general purpose sweetener in conventional foods, the dosages are self-limiting due to their organoleptic properties.

FOOD CATEGORIES	FEMA NO. VITOSA® DELIGH (FEMA # 4951)	FEMA NO. VITOSA® MATCH (FEMA # 4952)	FEMA NO. VITOSA® ACTIVE (FEMA # 4953)
	AVERAGE USUAL AND AVERAGE MAXIMUM USE LEVEL	AVERAGE USUAL AND AVERAGE MAXIMUM USE LEVEL	AVERAGE USUAL AND AVERAGE MAXIMUM USE LEVEL
Baked Goods	70	50	100
Beverages Type I, Non alcoholic	70	50	100
Beverages Type II, alcoholic	70	50	100
Breakfast Cereals	70	50	100
Cheese	70	50	100
Chewing Gum	70	50	100
Condiments and Relishes	70	50	100
Confectionery and Frostings	70	50	100
Egg Products	0	0	0
Fats and Oils	0	0	0
Fish Products	0	0	0
Frozen Dairy	70	50	100
Fruit Ices	70	50	100
Gelatins and Puddings	70	50	100
Granulated Sugar	0	0	0
Gravies	70	50	100
Hard Candy	70	50	100
Imitation Dairy Products	70	50	100
Instant Coffee and Tea	70	50	100
Jams and Jellis	70	50	100
Meat Products	0	0	0
Milk Products	70	50	100
Nut Products	70	50	100
Other grains	70	50	100
Poultry	0	0	0
Processed Fruits	0	0	100
Processed Vegetables	0	0	100
Reconstituted Vegetable Protein	0	0	100
Seasonings and Flovors	70	50	100
Snack Foods	70	50	100
Soft Candy	70	50	100
Soups	70	50	100
Sugar Substitutes	0	0	0
Sweer Sauce	70	50	100

SOLUBILITY IN WATER



Possessing high stability at various temperatures and pHs at usual F&B conditions.
High storage stability.

Please note: this document is available for various countries all over the world and hence it may contain statements or product classification not applicable to your country. The claims made are in reference to ingredients only, hence they do not refer to finished products. Marketers of finished products containing the ingredient described herein are responsible for determining whether the claims made for such products are lawful and in compliance with the laws of the country in which they will market the products.