Palatinose™ - at a glance

Classification
- A carbohydrate, sugar, disaccharide
- Occurs naturally in honey
- Generic name: Isomaltulose
- Derived from sugar beet: Sucrose is converted into Palatinose™ by enzymatic rearrangement of the alpha-1,2-bond between the glucose- and the fructose unit of the disaccharide to an alpha-1,6-bond

Technical
- White, crystalline, soluble powder
- Stable to hydrolysis in acidic drinks and thus helps to maintain osmolality in iso-, hyper-, and hypotonic beverages
- Very low hygroscopicity
- Resistant to fermentation by most of the microorganisms and lactobacilli present in foods, suitable for dairy products
- As non-fermentable carbohydrate, it stabilises the food matrix against bacterial spoilage (anti-oxidative potential)

Sensorial
- Pure, mild, sugar-like sweetness
- Approximately half the sweetening power of sucrose
- Masking agent
- No aftertaste

Nutritional
- Fully available and well tolerated
- Providing 4 kcal/g
- Blood sugar and insulin levels low in comparison to high glycaemic carbohydrates / low glycaemic (GI of 32)
- Provides prolonged and balanced energy
- Promotes enhanced fat oxidation during physical activity i.e. better use of body fat storage and thus saving carbohydrate reserves for longer endurance
- Toothfriendly, non-cariogenic
- Energy supply in form of glucose supports mental and physical performance
- The only known carbohydrate to be fully but slowly digestible and low glycaemic yet supplies the same amount of energy in the form of glucose as sucrose, but over a longer period of time
- Numerous scientific studies prove the nutritional benefits

Applications
- Sport and energy as well as functional beverages
- Toothfriendly confectionery
- Meal replacers
- Breakfast cereals, cereal and energy bars
- Dairy drinks, yogurt drinks