

## Palatinose™ PST Specification (relevant for all types of Palatinose™ PST)

Palatinose™ (isomaltulose) is a disaccharide. Starting material for the Palatinose™ production is sugar. By an immobilized enzyme preparation sugar is converted to Palatinose™. Its chemical name is 6-O- $\alpha$ -D-glucopyranosyl-D-fructofuranose.

The specification of Palatinose™ PST covers the requirements resulting from the isomaltulose monograph in Food Chemical Codex (FCC).

Parameter	BENEO-Palatinit Specification on Palatinose PST™	Method
Assay*	$\geq 98$ g/100 g isomaltulose	HPLC <sup>1)</sup>
Description	White or colorless, crystalline, sweet substance faint isomaltulose specific odor	
Identification		
Thin layer chromatography	Passes test	TLC <sup>2)</sup>
Solubility	Soluble in water	
Purity		
Other saccharides*	$\leq 2$ g/100 g	HPLC <sup>1)</sup>
Water	$\leq 6$ g/100 g	Karl Fischer <sup>3)</sup>
Ash*	$\leq 0.01$ g/100 g	Conductivity <sup>4)</sup>
Lead*	$\leq 0.1$ mg/kg	AAS <sup>5)</sup>

\* based on total solids

- 1) Südzucker Standard Operation Procedure: Determination of the Composition of Palatinose™ as such and in food using HPLC
- 2) Südzucker Standard Operation Procedure: Identification of Palatinose™ using thin layer chromatography
- 3) Karl Fischer Method according to ICUMSA Method GS4/7/3-12 (1998)
- 4) Conductivity ash according to ICUMSA Method GS2/3-17 (2002)
- 5) Atomic Absorption Spectroscopy according to ICUMSA Method GS2/3-24 (1998)

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