TECHNOLOGY OF CANDY CARAMEL WITH DIETARY-FUNCTIONAL PROPERTIES

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The article presents the results of the development of the technology of candy caramel for dietary-functional purpose using monosaccharide fructose and sweeteners of the new generation – polyols isomaltitol and maltitol. The feature of this technology is the lack of starch molasses in the formulation. The physical-chemical, structural-mechanical and sorption-desorption properties of the obtained caramel samples in comparison with caramel produced on the basis of traditional sugar technology are investigated. The content of reducing agents in the developed caramel samples is 6.5 and 6.7%, respectively, for samples on isomaltitol and maltitol, which is more than 3 times less than in caramel based on sucrose and starchy molasses. Isotherms of adsorption-desorption of moisture showed that the equilibrium moisture of samples at $a_w 0.7−0.75$ varies within 2.0−2.5%, which contributes to the absence of violation of the amorphous structure during storage, despite the reduced content of reducing agents. Calculation of glycemic index and energy values indicates that new types of caramel deserve the labeling of "Product with reduced glycemicity" and "Low calorie product". On the basis of the research, new types of candy caramel "Fruity lightness" on the basis of isomaltitol and "Nasoloda" on the basis of maltitol were developed.

Keywords: candy caramel, isomaltitol, maltitol, fructose, glycemic index.