

## **Relevance of using low temperature technologies in the creation of products for special purpose**

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Difficult environmental situation now leads to the spread of diseases among the population, many of which are related to nutrition. So products of special purpose, including free from some of the ingredients which are present in food is not recommended by medical guidelines (allergens, some types of proteins, etc.) is nowadays are very important. Especially noteworthy problem creating gluten-free foods for celiac disease, the need for which in recent years has increased markedly.

Celiac disease is a disease that affects the intestinal tract of people who have absolute intolerances of identified cereal's proteins. Until recently, the disease was considered to be a rare disease, but research conducted independently in different countries, found that celiac disease affects approximately 1% of the world population. This disease is treated only by a special gluten-free diet, which categorically forbids using products that contain wheat, rye, barley and their derivatives.

Today we know the developing of gluten-free breads and pastas, but almost no data on flour food products (dumplings, pancakes, etc.) that do not contain gluten. Thus, the development of technologies such specialized dishes and products for cafes, restaurants, canteens and other facilities of the restaurant industry with the development of the restaurant business, is becoming more urgent.

It is known that in the food business the segment of visitors with celiac disease is small, so it is expedient to create gluten-free flour food products of long-term storage.

One way of solving this problem is shock freezing. Shock freezing system can reach - 18 °C in the product's body less than 240 minutes - the maximum time for microcrystalising of molecular products, but the organoleptic properties of manufactured food products remain unchanged.

The production technology of frozen "gluten free" pastries will allow to introduce their products to suppliers and provide them to restaurant business. People with celiac disease have a right to food, not only at home but also in the restaurants without compromising their health.