

51. Rheological indexes of sauces using okara in canned meat

Igor Strashynskiy, Vasyl Pasichnyi, Volodymyr Bakhmach, Andriy Grabarovskiy
National University of Food Technologies, Kyiv, Ukraine

Introduction. Sauce is an additional ingredient of food that has a characteristic stiff consistency used in the preparation of dishes or is served to the finished food to improve its taste and aroma [1, 2].

Materials and methods. Sauce for long-term food products contains bouillon, onion, wheat flour, parsley, pork fat, salt, sugar, okara in the appropriate quantitative ratio of prescription ingredients. For cooking the bouillon usually use beef, pork, mutton bones, which after washing in cold water, are crushed to 5-7 cm, and boiled in water with the ratio of bone and water 1: 3 $\tau = 3 \dots 4$ hours. In the end, the bouillon is filtered.

Results The sauce must have an appropriate characteristic consistency, be almost fluid. Sauces are creamy, paste, creamy or have liquid consistency. The indicator characterizing the rheological properties of the flour and okara based sauce is the marginal shear stress, or the strength limit - the ability to resist the body of the form change under the action of external forces, shown in the graph (Fig. 1).

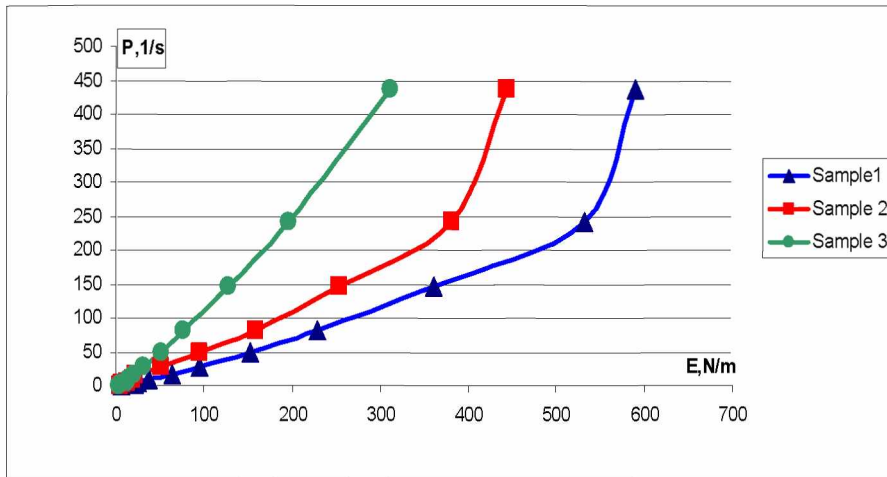


Fig.1 The dependence of changing the tensile stress of displacement from the rate of deformation

Conclusion. An analysis of the obtained rheological curves for the flow of samples of sauces shows that the best viscosity properties have a sample 3. Sample 2 is close to it but has worse rheological properties. Sample 1 has rheological properties that are close to Newtonian liquids, that is their flow with a change in the applied stress has a virtually linear character.

References1. Pasichniy, V., Yushchenko, N., Mykoliv, I., Kuzmyk, U. (2015). Structure stabilization of fermented-milk pastes. *Ukrainian Food Journal*, 4 (3), 431–439.

2. Strashynskiy, I. M., Pasichnyi, V. M., Fursik, O. P. (2015). Reolohichni vlastyosti hidratovanykh bilokvmsnykh funktsionalnykh kharchovykh kompozytsii. *Novi rishennia v suchasnykh tekhnolohiiakh*, 62 (1171), 166–170.