One of the important directions of modern food industry development is the use of stabilizers’ consistency, thickeners, emulsifiers, gelling agent. Hydrocolloids relate to preparations that perform these functions in food composition. They are high molecular compounds, which are soluble or swellable in water.

The article describes data of the research to determine rheological characteristics of a 1% aqueous solution of hydrocolloids such as carrageenan, sodium alginate, xanthan and guar gums. The results of the effect of thermal processing conditions, specific to the technology of cooked sausages, on their dynamic viscosity were analyzed. The changes of this indicator, as a result of the addition of pyrogenic silica A300 were specified.

It is proved that the introduction of silica to aqueous solutions of guar and xanthan gum somewhat improve dynamic viscosity before and after the heat treatment parameters, whereas in the composition of sodium alginate this indicator does not change. Introducing this additive to carrageenan, this indicator decreases. It is found that introduction of the mentioned additives as anti-caking agent prevents caking both of food hydrocolloids, and partially affect their properties.

Keywords: hydrocolloids, silica, dynamic viscosity.