ПАВ 2015
III Всероссийский симпозиум с международным участием по поверхностно-активным веществам

Санкт-Петербург, 29 июня—1 июля 2015 года
пав2015.рф
The Influence Of Concrete Compound Super Plasticizer C-3 On The Stability And Of Coal Water Suspension

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There are more than four hundred brands and various ore of coal, so using of coal as a raw material provide us electricity, production of heat energies and developments of chemical industries. The value of organic matter of coal based on the usage of as fuel and raw material.

For this circumstances, coal-water, the suspension of coal in water in some countries tackles the fancy of many scientists. There are some benefits of using water-coal fuel: firstly, it does not pollute the ecology like coal.

Secondly, we could solve the transportation problems by using water-coal fuel, because the coal is transported by railways and water-coal fuel does not have this problem.

In our previous work in order to formulate the economic efficiency and developments of the best technologies in industry of new fuel- water-fuel, we studied the influence of water-soluble polymers (WSP), polyethyleneimini (PEI), carboxyl methylcellulose sodium (NaCMC), surface active substances(SAS), sodium dodecylsulfate (NaDDS), oxyethyl alkylphenol (OP-10) and its compositions to the stability of dispersion and rheological properties of Shubarkol coal, and also studied them to be used as effective reagent to ease the pipe transportation[1–2].

The influence of concrete plasticizers- superplasticizer C-3 to the stability of suspension of coal in water and its streamlining are studied for the development of economical effectiveness of getting new coal-water fuels.

C-3 is plasticizer compound in the class of super plasticizer. It contained various molecular weights of polymethylenaphthane and sulphoacidic sodium salts.

Because of the low chemical activity, C-3 is added to many compounds for many purposes. The another advantage of super plasticizers- it provide some movability of concrete compounds. For this reason the suspension of coal in water stabilized in this work and affect of C-3 super plasticizer to the

streamlining, viscosity and stability of the suspension of coal in water also studied to make the transportation easier.

The indicated plasticizers are very suitable to increase the stability of coal-water-suspension. Because in very low concentration (0.005 %, 0.01 %) could be obtained stable coal-water-suspension and stability lasted for 3 days. And also this SAS (between 0.005±0.04 %) decreases the stability of coal-water-suspension (4 times), but increases the streamlining for 3 times. The same results can be gained over 30% concentration of coal-water-suspension.

The findings showed that concrete plasticizers- C-3 plasticizer stabilizes the coal suspension in water, and it could be used as an effective reagent to make easy pipe transportation.

Литература
