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FACTORS OF FORMATION THE COMPETITIVENESS OF PRODUCTION OF IRON ORE ENTERPRISE

In terms of the increasing of the competitiveness in the market of iron ore, providing of metallurgical high quality raw material, which would fully comply with current requirements is the condition for surviving for most mining enterprises in Ukraine.

The development of the global iron ore market is primarily dependent on the volume of consumption, namely production of steel and cast iron in the world. Due to the global financial crisis, the demand and thus prices for raw products dropped, resulting in sharpening of competition in world markets. In terms of iron ore production Ukraine is in sixth place in the overall world rankings, behind China, Australia, Brazil, India and Russia [1]. The volume of iron ore products is almost twice as much as domestic consumption, which determines an export oriented marketing policy of iron enterprises in Ukraine [2, c.121]. This shows the necessity for further development of the mining industry in order to realize the existing potential and securing the position on the world market. The only possible way for mining and enrichment plants of Ukraine (GOK) to compete in global market is to improve the quality of its products.

Iron ore is characterized by a large number of individual quality indicators: particle size of pieces, interspersed of mineral grains, the content of iron, sulfur, arsenic, phosphorus, zinc, copper, manganese, nickel, vanadium and so on. However, the scientific papers that are devoted to the formation of iron ore quality, often used as a clear indicator: total iron content [3, c.107].

Enterprises of industry producing the full range of iron ore: ore in pieces and fine iron ore, iron ore concentrate, pellets and sinter. The content of metals in products during processing of iron ore (sinter and pellets) is determined by several factors, the main ones are: the metal content in the feedstock (ore, that is mined), the effectiveness of the technology in processing of raw materials and condition of the equipment that is used. Marketable iron ore products of national producers do not meet the requirements of the world market: the Ukrainian concentrate by rating the quality is on one of the last places among the world producers. Therefore it is obvious that the quality of iron ore concentrate needs to be raised of National plants with poor technical and technological level of production produces low quality iron ore products. Now on the global market a competitive are products that contains iron about 67-68% and silica up to 4-5%. National enterprises are far below the world standards of its quality iron ore products, the requirements of which are determined by technological features of steel production. In Ukraine and Eastern Europe, the main technological process of receiving the cast-iron is blast furnace, that is why requirements for quality are slightly lower than in the metallurgical enterprises in Western Europe, where it is widely implemented the technology of direct reduction of iron from ore.

An example of a successful export-oriented enterprise which sells almost all products in the foreign market is Poltava Mining. For its main advantages compared with competitors should be included: an advantageous geographical position and developed infrastructure for shipments of pellets, large reserves of ore and high-tech facilities for its processing, enabling strategic partnerships with key customers, averages level of cost of production and supply of pellets. It is economically justified that the purposeful innovative renewal of production processes of raw materials on Poltava Mining allowed to achieve a high metallurgical properties of pellets: the iron ore content in fluxed pellets is about 65-66%; compressive strength - more than 250 kg / per pellet (practically does not destroyed during multiple overloads and transportation over long distances); low content of fines - up to 2.5%; equal granulometric composition - up to 96% of the 9-16 mm class.

It should be noted that the presence of harmful impurities is a significant negative factor that prevents the successful realization of iron ore products. Recently, the importance of ecological consequences in using iron ore becomes extremely, because consumers impose requirements concerning its environmental performance. That is why the preference is given to environmentally friendly pellets of Poltava Mining that provides in the process of blast-furnace the reduction of emission in the air.

References:

1. Власюк Т.О. Конкурентні позиції України на світовому ринку залізорудної сировини/ Т.О. Власюк // “Економічний і соціальний розвиток посткомуністичних держав в умовах глобалізації”: Збірник наукових праць міжнародної науково-практичної конференції (Рівне, 21-22 квітня 2010 р.).- Рівне: РІ ВМУРоЛ “Україна”, 2010. – С. 22-30.

2. Бабець Є.К. Сборник технико-экономических показателей горнодобывающих предприятий Украины в 2009–2010 гг.: Анализ мировой конъюнктуры рынка ЖРС 2004–2011 гг./ Є.К. Бабець, Л.О. Штанько, В.А. Салганик / Кривой Рог: Видавництво ПП «Видавничий дім», 2011. – 329 с.

3. Кочура Є.В. Аналіз сучасного стану управління якістю залізорудної сировини / Є.В. Кочура, І.А. Белкіна // Науковий вісник НГУ, 2011, № 3 – С. 107-113.