



NATIONAL METALLURGICAL ACADEMY OF UKRAINE

TECHNOLOGY OF OBTAINING AGGLOMERATED FLUX

Purposes and implication

There has been developed the technology for manufacturing agglomerated flux that can substitute flux content of sinter burden. The technology can be introduced in sinter plants or mining and metallurgical plants that agglomerate metallurgical raw materials.

Key characteristics of the developed technology

The key point of the technology for manufacturing agglomerated flux is combining the process of producing lime and ferrite compounds during sintering in conveyor of combined granules. Combined granules are received in the process of knurling iron ore material over pre-wetted surface of limestone lumps. To produce agglomerated flux charge should have the following parameters: limestone size 3-10 mm, iron ore magnetite concentrate and solid fuel (coke breeze) with the size 0-5 mm. It is possible to imply the technology for receiving agglomerated flux with the required content and characteristics in existing sinter factories without the installation of add-on equipment. The substitution of traditional fluxes with the given agglomerated flux allows to increase productivity of sinter plant by 16%, increase agglomerate strength, reduce the content of screenings by 8.37%, and reduce solid fuel consumption by 1.5-2%. There are no analogues of the technology in Ukraine.

Intellectual property rights protection

Two patents for the utility model protect the technology.

Market demand

The technology can be implemented in ferrous metallurgy industry in Ukraine.

Availability of the technology

The technology of receiving agglomerated flux has been theoretically substantiated. Major technological parameters of production have been outlined. The recommendations for the use of the given flux in sinter production have been made.

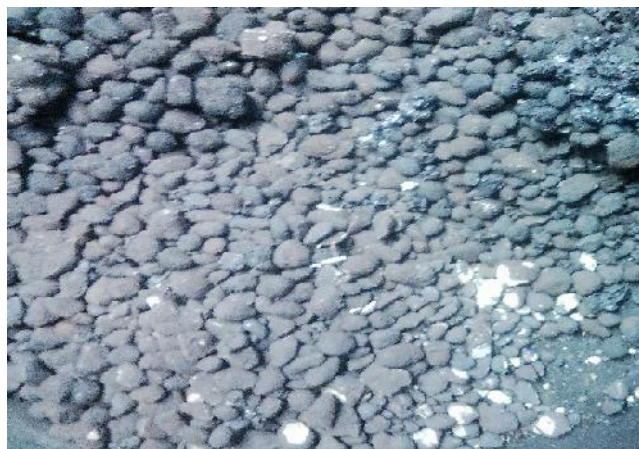


Photo of agglomerated flux

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