

IRON SILICATE FINES PROCESS CARD

ORIGIN

Aurubis Bulgaria iron silicate fines is a by product produced in the process of treatment of copper slags. Copper slags are result of copper concentrates metallurgical processing at Aurubis Bulgaria copper smelter, in Pirdop, Bulgaria.

After slags removal from flash, convertor, and anode furnaces, slags are treated by mechanical crushing, milling and flotation at the Aurubis Bulgaria Slag Flotation Plant.

In this process, the residual copper is recovered, and iron silicate fines is produced.

The iron silicate fines is stored in covered storage area and shipped to customers by tracks, trains and ships.

APPLICATION

Iron silicate fines mostly contains iron minerals. The iron is in form of pure Fe and Fe_3O_4 and Fe_2O_3 form.

Iron silicate fines is fine, hard sand, utilized in various areas in construction sector:

Cement: Iron silicate fines is used by the cement industry as additive in the clinker production.

Concrete and mortar: Iron silicate fines is certified as a fine filler by EN 12620 and EN 13139. It also has ETA for a cement replacement in blended cements.

Ceramic: Iron silicate fines is used in ceramic production.

CHARACTERISTICS

CHEMICAL

FE	46.0 %
SiO ₂	26.0 %
Al ₂ O ₃	3.5 %
CAO	1.5 %

PHYSICAL

Specific density	3.7 g/cm ³
Bulk density	1.8 g/cm ³
Color	Anthracite
Form	Sand/Powder

MINERAL

Magnetite, Fayalite, Peroxene, Iron phases II and III

GRAIN SIZE

50% 20÷200 microns
50% < 20 micron

