FLAT GLASS FACTORY FROM FLY ASH OF COAL-BURNING SUBSTITUTE FOR SILICA SAND

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Abstract
Flat glass produced from the mixture of silica dioxide in the form of material clear and transparent. Factory flat glass this will established in the Cilegon, Banten. This factory uses raw materials fly ash with silica content of 75% with the process of float.

Manufacture of flat glass factory from fly ash with the float through 6 stages. The first stage factory is preparation raw material. The second stage is the process of mixing raw materials. The third stage is the stage of smelting which changes the physical properties and chemical properties at temperatures ranging from 1450 °C. The fourth stage process namely float obtained by means floated molten glass above molten tin lead to acquire flanness flat glass. The fifth stage is the process of cooling the glass out of the process of formation. The last stage is the process of cutting and packing.

Flat glass factory work continuously and operates during 330 days/year with a production capacity of 26.000 tons/year. Fly ash is needed of 25.412 tons/year with supporting raw materials of soda ash and lime stone. The needs of utility boiler feed water, process water and sanitation water each of 285.214 m$^3$/year, 7.345 m$^3$/year dan 1.164,57 m$^3$/year. Waste resulting from industry is fly ash left over, cullet or pieces of glass and gas a result of burning.

Keywords: Flat glass, Fly ash, Float Process
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