**Feasibility study in plastic production**

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**Abstract**

Masterbatch is the raw material of plastics and products that are frequently used in daily life. In most industrial and factory productions, masterbatch is used in the production of raw materials. Masterbatch usage areas; automotive, white goods, electrical and electronics, pet bottle and packaging industries. During the production phase of the facility, Calcite masterbatch and White masterbatch, known under commercial names, are produced in different proportions. Raw materials are produced automatically from cyclones in granular form. Mixtures are prepared in weight ratios according to the characteristics of the product to be obtained as a result of production. In addition, it is produced in granule form by cooking at the entrance of the extruder. A feasibility study was carried out in production and the hourly extruder and granulating capacity was calculated as C280.PP 700 kg/hour, C370.PE 700 kh/hour, T370.PE 1000kg/hour. The amounts of polypropylene, calcite, titanium, polyethylene, paint, polyethylene sacks, wooden pallets, stretch nylon, plastic packaging straps and filter mesh, which are the materials required for production, were also calculated.

**Keywords:** Plastic production, Feasibility study, Masterbatches, Used areas

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