

ABSTRACT

The goal of this study is to examine the quality control of the dolomite used as a raw material to make glass sheets. The study was carried out at PT. Muliaglass Float is a business in the industrial sector. The population of this study is the dolomite raw material, which was delivered as 3,764,200 samples and weighed 9,767,500 kilos over three months, with a moisture content of 13.32 percent overall. Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) and FMEA are used in the analytical process (Failure Mode Effect Analysis). The increase in sigma levels before and after the process has shown that quality control using the Six Sigma approach is a successful strategy for raising the quality of dolomite raw materials. However, due to several factors, including a lack of awareness of the value of quality control and the high expense of maintaining warehouses as a location to keep raw materials, the deployment of the Six Sigma DMAIC and FMEA procedures in the organization has not been performed satisfactorily. The article discusses the ramifications of this research.

Keywords : FMEA, Six Sigma, Dolomite, DMAIC, Defect, Quality Improvement.



ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengendalian kualitas dolomit yang digunakan untuk bahan dasar pada produksi lembaran kaca. Kegiatan penelitian dilakukan di PT. Muliaglass Float yaitu perusahaan industri manufaktur. Populasi dari penelitian ini adalah bahan baku dolomit selama tiga bulan yaitu 9.767.500 kilogram dan total moist 13.32% dengan jumlah sampel kedatangan bahan baku dolomit 3.764.200 dan moist 13.39. Teknik analisis menggunakan Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) dan FMEA (Failure Mode Effect Analysis). Hasil penelitian memperoleh jika pengendalian kualitas dengan metode Six Sigma merupakan teknik yang efektif dalam meningkatkan kualitas bahan baku dolomit, hal ini dapat dilihat dari kenaikan level sigma sebelum ada perbaikan dan sesudah perbaikan. Namun demikian penerapan metode Six Sigma DMAIC dan FMEA pada perusahaan belum beroperasi secara optimal karena dipengaruhi beberapa penyebab seperti rendahnya pemahaman terhadap pentingnya pengendalian kualitas serta tingginya biaya perbaikan gudang sebagai tempat penyimpanan bahan baku. Implikasi penelitian ini dibahas dalam artikel.

Kata Kunci: Dolomit, DMAIC, Defect, Quality Improvement, FMEA, Six Sigma.

