Dust Collection System in Cement Industries Using Nano-Technology

Abstract

One of an important application the filtration system, whether filtering water or air. Cement plants in Libya which are located in residential areas, agricultural, or near water sources, so dust problem are solved by using innovative solutions in environmental dust collection. Dust collection system has proved. Highly effective especially after improving the mechanical properties of the candidate to add enhanced materials, this was an obvious performance of the filter. Carbon fiber has a global and multi-market increases mechanical properties in various industries. The addition of simple ratios of fiber carbon to polypropylene increases the tensile strength significantly, working to withstand the difficult conditions faced by the filter of high pressure and sometimes moisture, and other conditions that earlier discussed in this thesis. Addition of Talc has significant effect to improve the arrangement of atoms leading to nucleation effect. By using CF reinforce to PP to produce the appropriate filter. Fiber reinforced plastic are very costly but the ability to sustain a load without excessive deformation or failure. Specified filters for use in nearly any industrial application. By applying this design can minimize the negative impact caused by the industry and reduce these emissions to about 99%+ efficiency on 0.3-0.4 micron particulate.