

## **The Effects of Carbon Black and Calcium Carbonate as a Filler on Cure Characteristic and Physical Properties of SBR/CRr Blends**

### **Abstract**

Filler are compounding ingredients added to a rubber compound for the purpose of iether reinforcing or cheapening the compound. Despite that, fillers can also be used to modify the physical properties of both unvulcanized and vulcanized rubbers. Typically filler materials include carbon black, calcium silicate, calcium carbonate and clay [. The mechanism of reinforcement of elastomers by fillers has been reviewed by several workers. They considered that the effect of filler is to increase the number of chains, which share the load of a broken polymer chain. It is known that in the case of filled vulcanizates, the efficiency of reinforcement depends on a complex interaction of several filler related parameters. They include particle size, particle shape, particle dispersion, surface area, surface reactivity, structure of the filler and the bonding quality between the filler and the rubber matrix.

**Keywords;** Curing Characteristic, Physical Properties, Recycled Chloroprene Rubber, SEM, Styrene Butadiene Rubber (SBR)