

Technical articles

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Peroxide crosslinked silicone rubber. Alternative chlorine-free peroxide and optimisation of property combinations 128

The mineral filler Aktisil Q was developed by Hoffmann Mineral GmbH specifically for high-temperature vulcanised (HTV) solid silicone rubbers. In this article, we will take a closer look at the advantages of Aktisil Q when replacing a chlorine containing peroxide with a chlorine-free product. In addition, it will be shown that Aktisil Q can improve opposing properties in combination and also reduce mixing costs, in some cases significantly.

G. MELI, A. BERJEAUD

Surface coated minerals for fluoroelastomers 134

Fluoroelastomers have special physical and chemical properties like high chemical resistance, temperature stability and good dielectric properties. This paper will introduce several functional fillers specially designed for fluoroelastomers: wollastonite (a calcium metasilicate), talc (a hydrated magnesium silicate) and calcined clay (a hydrous clay heat treated). Furtheron, it will illustrate their benefits in two different curing systems: bisphenol and peroxide.

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Comparing black incorporation time and fill factor of EPDM in pellet and bale form..... 140

The objective of this paper is to demonstrate that semi-crystalline EPDMs in pellet form provide a faster black incorporation time (BIT) compared to semi-crystalline EPDMs in bale form. Moreover, EPDM pellets can also enable higher fill factors in the mixer compared to the bale form due to the higher surface area to volume ratio relative to bale EPDMs. The decrease in BIT and increase in fill factor help compounders to achieve higher productivity.

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