

## Technical articles

S. ALOUI, W. WURPTS, H. DECKMANN

### **Methods for simultaneous dynamic-mechanical and dielectric analysis – Part 2: Temperature dependence of the dielectric behavior of elastomer composites under static deformation..... 72**

Electrically conductive fillers can be used as "markers" for condition monitoring of elastomer components, provided the exact correlation between the mechanical and dielectric properties of the material is known. Part 2 of this series of three articles on simultaneous dynamic-mechanical and dielectric analysis deals with the influence of temperature on the dielectric behavior of elastomer composites under static deformation.

A. ANSARIFAR, K. NOULTA, G. W. WEAVER, K. G. U. WIJAYANTHA, S. KAHAGALA GAMAGE

### **A novel method for the optimization of sulfur cure systems for rubber using software..... 79**

Using a JavaScript programme, cure test results for the sulfur vulcanization of a natural rubber were processed to develop a highly efficient method for selecting the most efficient sulfur cure system. This method removes the need to mix and test the raw rubber with chemical curatives repeatedly to find a compound with ideal cure properties for industrial applications.

K. KNIPP

### **Analysis of methods for measuring dispersion of fillers in rubber compounds..... 84**

This paper will discuss the use of three techniques used to measure dispersion of fillers in rubber compounds: Phillips Dispersion test, Dispergrader test, and nSpec 3D topography scan. A simple SBR compound was selected and five different fillers were evaluated. This paper will also briefly discuss the advantages and disadvantages of the three different dispersion measurement techniques.

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