

Название публикации:

Investigation of chlorinated modifier content influence on the physical-mechanical properties and vulcanizing characteristics of rubber and rubber mixture

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Аннотация:

Present paper is devoted to the novel solution for the chlorination technology of polyolefin and diene rubbers - mechanochemical halide modification, as a more efficient way to obtain halogenated elastomers with a wide range of halogen content (from 3 to 7 %). The vulcanizing characteristics of elastomeric compounds based on the chlorinated rubber compounds as well as the production conditions of vulcanization process have been studied by the methods of dynamic mechanical rheometry. The performed investigation revealed the influence of chlorine content in different types of rubber compounds on rheological and physical-mechanical properties. New halogen-containing polyolefins rubbers produced by this technology proved themselves in the conditions of the rubber production.

Ключевые слова:

Chlorination, Mechanical properties, Chlorine content, Dynamic mechanical, Elastomeric compounds, Halogen contents, Mechanochemicals, Physical-mechanical properties, Rubber production, Vulcanization process, Rubber