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Influence of Betaine on the Properties of Polyisoprene Rubber

Wang Zhifen, Luo Wenjie, Fang Lin, Liao Shuangquan, Zhao Yanfang, Li Lefan, Pan Xuemei, Gao Yangjianshu

(Key Laboratory of Ministry of Education for Advanced Materials in Tropical Island Resources, School of Materials and Chemical Engineering, Hainan University, Haikou 570228, China)

Abstract: In this study, the influence of betaine (N,N,N-trimethylglycine, non-rubber component in natural rubber) on the curing characteristics, tensile properties and thermal stability of polyisoprene rubber (IR) was investigated. Compared with the IR compound without betaine, the curing rate of the compound with betaine IR increased significantly, the crosslink density increased, tensile properties were improved and the thermal stability was slightly improved. The recommended addition level of betaine was 0.5 phr.

Keywords: betaine; polyisoprene rubber; curing characteristics; tensile properties; thermal stability



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邓海燕