$t_{10}$ 和 $t_{90}$ 缩短,硫化反应速率常数k增大,硫化反应活化能 $E_a$ 降低;随着甜菜碱用量增大,k和 $E_a$ 变化不大,硫化胶膜的交联密度显著提高。

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## Effect of Betaine on Vulcanization Characteristics of NR Latex Film

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**Abstract:** The effect of betaine on the vulcanization characteristics of NR latex film was studied with the use of an oscillating disc rheometer. The results showed that  $M_{\rm H}$ ,  $M_{\rm L}$ ,  $t_{10}$  and  $t_{90}$  decreased with the addition of betaine. The parameters of curing kinetics were then calculated using Arrhenius equation. The curing reaction activation energy ( $E_{\rm a}$ ) of NR latex film with betaine was smaller than that of original NR latex film while the reaction rate constant (k) was higher. With the increase of betaine amount, the curing rate and crosslinking degree of the vulcanizates increased.

**Keywords:** NR latex film; betaine; vulcanization characteristics; kinetics



## 欧洲轮胎网络销售前景看好

据英国弗洛斯特与沙利文(Frost & Sullivan)咨询公司预测,随着网络的快速发展,到2020年,欧洲轮胎销售量中20%将通过网络销售来实现。从汽车零部件电子零售市场

的持续增长可以看出互联网对汽车行业的影响。网络销售新颖、灵活,可以提供个性化的购物体验,满足客户的需求,也给售后市场经营者提供了新的商机。 郭 汐