## 4 结论

- (1)不同抗硫化返原剂的作用机理不一样, 但都有补偿硫化胶交联键,保持交联密度的作用。
- (2)单项物理性能过硫化后的变化不能够表征胶料的抗硫化返原性能。
- (3)  $t_{R97}$ 可以表征同类配方和相同生产工艺胶料的抗硫化返原性能。 $t_{R97}$ 越长,胶料的抗硫化返原性能越好。
- (4)硫化仪型号不影响胶料抗硫化返原性能 的测试。
- (5) t<sub>R97</sub>、硫化活化能和硫化返原降解活化能结合,可以表征胶料的抗硫化返原性能,判断抗硫化返原剂性能优劣。综合来看,本工作S1配方胶料t<sub>R97</sub>较长,硫化返原降解活化能较大,硫化活化能较小,硫化速率较大,因此抗硫化返原剂A是优选的抗硫化返原剂。

## Study on Evaluation Methods of Anti-Reversion Properties

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**Abstract:** In this study, the mechanism of anti-reversion agents was discussed. The influence of five anti-reversion agents on the physical properties, curing activation energy and reversion activation energy of the tire base compound were experimentally investigated, and the evaluation methods of anti-reversion agents were discussed. It was found that the anti-reversion properties of the compound could not be assessed by the change of a single physical property after curing. For the compounds having similar recipe and production process, when the  $t_{\rm R97}$  (the time for the torque decreased from when it reached  $M_{\rm H}$  to 97% of  $M_{\rm H}$ ) was higher, the anti-reversion property was better. It was then recommended to use  $t_{\rm R97}$ , curing activation energy, and reversion activation energy together to evaluate the properties of anti-reversion properties.

**Keywords:** anti-reversion agent; anti-reversion property; crosslinking density; reversion activation energy; curing activation energy



## 大陆公司合肥轮胎厂将扩产至800万条

大陆轮胎公司计划2015年投资4250万美元,将其合肥轮胎工厂的年产能扩增到800万条,同时还将投资480万美元建设测试中心,并在该厂厂房屋顶上铺设近1万m<sup>2</sup>电池板,这些电池板所产生的电能可满足100万条轮胎年产能的

用电需求。这笔投资是该公司在2012年宣布的 2.15亿美元扩建计划的一部分。

这家合肥工厂是大陆公司投资2.6亿美元于 2011年开设的,规划产能目标为1600万条。

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