气密层胶的半钢子午线轮胎胎坯成型二段充气时的

橡胶科技

炸胎率明显减小。

- (3)采用粘土/SBR纳米复合材料气密层胶的 半钢子午线轮胎气压保持率大,减小气密层胶厚度 对轮胎气压保持率影响不大。
- (4)采用粘土/SBR纳米复合材料气密层胶的 半钢子午线轮胎速度性能和耐久性能均符合企业标 准要求。

总的来看,与BIIR胶料相比,粘土/SBR纳米复合材料成本较低,用其作主体材料的气密层胶物理性能改善,气密性显著提高,但密度较大,厚度可以适当减小。

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## Application of Clay/SBR Nanocomposite in the Inner Liner of Semi-steel Radial Tire

Zhang Qingyu<sup>1,2</sup>, Xu Jianzhou<sup>1</sup>

(1.Zhongce Rubber Group Co., Ltd., Hangzhou 311607, China; 2. School of Astronautics, Harbin Institute of Technology, Harbin 150001, China)

**Abstract:** The clay SBR nanocomposites was applied in the inner liner of semi-steel radial tire by replacing an equal amount of BIIR. The experimental testing results showed that, with clay/SBR nanocomposites, the crosslinking density was higher, the physical properties and air tightness were improved, the tire burst defect was reduced significantly, the pressure retention of the finished tire was good, and the speed performance and endurance performance met the requirements of enterprise standards. Compared with BIIR, the cost of clay/SBR nanocomposites was lower. However, the density was higher, so the thickness of inner liner might be reduced accordingly.

Keywords: SBR; clay; nanocomposite; BIIR; inner liner; semi-steel radial tire; air tightness



## 益阳橡机与青岛科技大学联合开发新型串联式双转子连续炼胶机

益阳橡胶塑料机械集团有限公司与青岛科 技大学联合开发了新型串联式双转子连续炼胶 机,并对该机进行了试验。与传统炼胶机相 比,新型炼胶机具有混炼胶分散性好、能耗 低、自动化水平高、生产效率提高300%、可减少混炼段、减少设备投资等优势,是轮胎、橡胶制品、电线电缆等胶料混炼的升级设备。

李中宏