

3 结论

(1) 在工程机械轮胎胎面胶中加入CX-01防

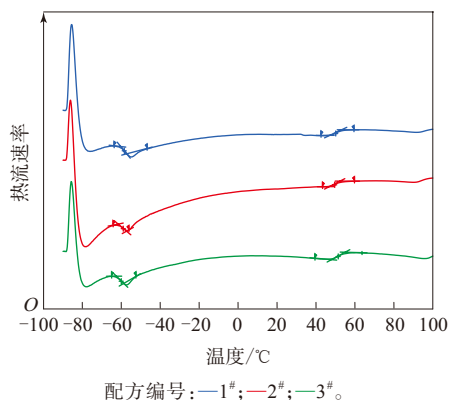


图1 胶料的DSC曲线

冻剂,胶料的门尼焦烧时间延长,加工安全性提高。

(2) 加入CX-01防冻助剂,胶料的拉伸性能变化不大;随着CX-01防冻助剂用量的增大,胶料的撕裂强度(裤形试样)呈上升趋势,但超过正硫化时间后胶料的撕裂强度略有下降。

(3) 冷冻、冷藏放置后,加入CX-01防冻助剂的胶料物理性能变化幅度减小。

(4) 随着CX-01防冻助剂用量的增大,胶料的 T_g 逐渐降低。

(5) CX-01防冻助剂加入工程机械轮胎胎面胶,可以提高轮胎在极寒条件下的使用寿命。

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Application of Anti-Freezing Agent CX-01 in Tread Compound of Off-The-Road Tire

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Abstract: The application of anti-freezing agent CX-01 in the tread compound of off-the-road tire was investigated. The results showed that, by adding CX-01 in the tread compound of off-the-road tire, the Mooney scorch time of the compound prolonged, the tensile properties of the compound changed little, and the physical properties decline of the compound after freezing and refrigerating were decreased. As the addition level of CX-01 increased, the tear strength (trousers sample) of the compound increased when it was cured less than the optimum curing time (t_{90}) and decreased when it was cured longer than t_{90} , and the glass transition temperature was lowered.

Key words: off-the-road tire; anti-freezing agent; tread compound

一种超低滚阻乘用车轮胎的胎面胶料及其制备方法

中图分类号: TQ336.1; TQ336.1*6 文献标志码: D

由山东盛世泰来橡胶科技有限公司申请的专利(公开号 CN 105778177A, 公开日期 2016-07-20)“一种超低滚阻乘用车轮胎的胎面胶料及其制备方法”,涉及一种超低滚阻乘用车轮胎的胎面胶料及其制备方法,配方组分(按质量份计)为: 稀土顺丁橡胶 15~25, 第一溶聚丁苯橡胶 34.5~62, 第二溶聚丁苯橡胶

40~50, 炭黑 20~30, 白炭黑 35~45, 软化剂 5~9, 活性剂 5~6, 防老剂 3~4, 抗湿滑滚阻剂 2.8~3.2, 偶联剂 5.6~7.2, 硫化剂 3.3~3.5。本发明胎面胶料高比例采用最先进的双末端改性溶聚丁苯橡胶SLR, 补强体系主要使用高性能、高分散白炭黑, 同时使用了特殊材料抗湿滑滚阻剂, 三者均有利于降低滚动阻力。采用上述配方和制备方法所制备的轮胎, 其滚阻性能大幅提高。

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