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Effect of Functional Rubber Curing Agent S-organic on Properties of NR Compound

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Abstract: The effect of new functional rubber curing agent S-organic on the properties of NR compound was investigated. The results showed that, compared with the common sulfur, curing agent S-organic had better anti-blooming property while the curing behavior of the compound with S-organic changed little. With S-organic, the physical properties of the vulcanizate were similar to those with common sulfur, the aging property was improved, the flexing resistance of the vulcanizate with conventional curing system was improved significantly, and the compression temperature rise decreased significantly.

Key words: NR; curing agent; anti-blooming; flexing resistance; compression temperature rise

一种母炼胶及其制备方法和硫化橡胶及其应用

中图分类号: TQ333.99 文献标志码: D

由中国石油化工股份有限公司和中国石油化工股份有限公司北京化工研究院申请的专利(公开号 CN 103159990A, 公开日期 2013-06-19)“一种母炼胶及其制备方法和硫化橡胶及其应用”, 提供了一种母炼胶及其制备方法, 包括以下步骤: (1) 将层状硅酸盐矿物、季铵盐与水[质量比为 1 : (0.1~0.5) : (30~70)]混合、干燥; (2) 将步骤(1)得到的产物与溶液聚合得到的橡胶胶液[质量比为 (3~10) : 100]混合制得悬浮液, 然后干燥制得母炼胶, 其中橡胶胶液含有聚合物和有机溶剂, 聚合物为聚丁二烯、聚异戊二烯、丁二烯-苯乙烯共聚物、乙烯-丙烯共聚物、乙烯-丙烯-1,4-己二烯共聚物、乙烯-丙烯-双环戊二烯共聚物以及乙烯-丙烯-5-亚乙基-2-降冰片烯共聚物中的一种或多种, 质量分数为 0.02~0.08, 有机溶剂为 C₅~C₂₀ 的烃类溶剂中

的一种或多种。该母炼胶的硫化橡胶具有较好的力学性能、较低的滚动阻力、良好的抗湿滑性及优异的耐磨性能, 用于生产轮胎可以降低轮胎的滚动阻力和油耗等。

(本刊编辑部 赵 敏)

阻燃的纳米橡胶改性的玻璃钢模塑料

中图分类号: TQ333.99; TQ327.1 文献标志码: D

由常熟市发东塑业有限公司申请的专利(公开号 CN 103160089A, 公开日期 2013-06-19)“阻燃的纳米橡胶改性的玻璃钢模塑料”, 涉及的阻燃纳米橡胶改性的玻璃钢模塑料配方为: 不饱和聚酯树脂 41~45, 纳米橡胶 4.8~9.7, 填料 115~148, 低收缩添加剂 23~37.5, 补强纤维 31~36, 引发剂 0.42~0.75, 阻聚剂 0.005~0.008, 增稠剂 0.10~0.14, 阻燃剂 5~8, 脱模剂 2.2~2.6。该玻璃钢模塑料具有强度好、收缩低和韧性好的特点。

(本刊编辑部 赵 敏)