

代炭黑N375,胶料的物理性能和耐屈挠性能比添加CBp的胶料改善,综合性能与生产配方胶料基本一致。采用改性CBp2的试验轮胎的高速性能和耐久性能满足企业标准要求。CBp经改性处理后,可替代一定比例的炭黑N375用于载重轮胎胎侧胶中,可降低生产成本。

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## Application of Pyrolysis Carbon Black from Waste Tire in Sidewall Compound of Truck and Bus Tire

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**Abstract:** The application of pyrolysis carbon black from waste tires (CBp) and its chemically modified products in the sidewall compound of truck and bus tire were studied. The results showed that, using 10 phr of CBp in the sidewall compound to replace carbon black N375 in the same amount, the hardness, tensile strength and flexing resistance of the compound were reduced, and the tear strength and resilience were improved. When CBp was modified, the physical properties and flexing resistance of the compound were better than those of the compound with unmodified CBp, and the comprehensive properties were basically the same as those of the production formula compound. The high speed performance and durability of the test tires with modified CBp met the requirements of enterprise standards, and the production cost was reduced.

**Key words:** waste tire; pyrolysis carbon black; chemical modification; truck and bus tire; sidewall compound; production cost

### 一种全钢子午线轮胎胎体胶料及其制备方法

由山东玲珑轮胎股份有限公司申请的专利(公布号 CN 111499932A, 公布日期 2020-08-07)“一种全钢子午线轮胎胎体胶料及其制备方法”,公开了一种全钢子午线轮胎胎体胶料。胎体胶料配方为天然橡胶 100,通用炭黑 50~70,

钢丝粘合剂 1~10。本发明将具有更好的耐热老化性能和抽出力保持性能的新型增粘树脂A250引入到全钢轮胎胎体胶料配方中,可以在保证半部件性能的同时适当提升轮胎性能,并改善工厂环境、降低危害性,还可以降低生产成本,提高了轮胎的市场竞争力。

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