

载体化合物,如 SDT/S,TP/S,M/G 和 S/G 以及增大 SDT/S 的用量对 NR 胶料的性能具有不同程度的影响:

(1) 加入 STD/S 和 TP/S 会缩短门尼焦烧时间,但能提高硫化平坦模量和抗硫化返原能力。

(2) 较低硫化温度(145)下,传统硫化体系赋予 NR 硫化胶较低的拉伸强度和 300 % 定伸应力,提高硫化温度(175),会使加入硫载体的 NR 硫化胶具有较高的拉伸性能保持率。

(3) 加入 SDT/S 和提高其用量,可提高 NR 胶料的抗硫化返原性能,降低硫化胶的动态生热和改善压缩永久变形性能。

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Effects of different sulfur donors on properties of NR compound for tire

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Abstract : The effects of the different sulfur donors, such as dioctyl polythiophosphate (SDT/S), zinc dibutyl dithiophosphate (TP/S), dithiocaprolactam (S/G) and dithiomorpholine (M/G), and the addition level of SDT/S on the processibility, curing behaviour, tensile strength, dynamic heat build-up and compression set of NR compound for tire were investigated by using the sulfur curing system as reference. The results showed that the Mooney scorch time was reduced, and the plateau modulus and the reversion resistance was improved by adding SDT/S and TP/S; the conventional curing system gave lower tensile strength and modulus at 300 % to NR vulcanizate cured at lower temperature (145), and the sulfur donors gave higher tensile strength and retention to NR vulcanizate cured at higher temperature (175); and the reversion resistance, dynamic heat build-up and compression set improved by increasing the addition level of SDT/S.

Key words : tire; NR; sulfur donor; compound properties

鱼脊型弹力轮胎

中图分类号:TQ336.1 文献标识码:D

由胡新斋申请的专利(专利号 99220677, 公布日期 2000-04-05)“鱼脊型弹力轮胎”,其特点是由胎体和胎面条构成,胎面条突出设置在胎体的表面中间。与现有技术相比,鱼脊型弹力轮胎的设计合理、结构简单、易加工、使用方便,可有效地减小轮胎与路面之间的摩擦,提高行驶速度,降低燃料消耗,延长轮胎使用寿命,并减少轮胎的维修费用。

内胎

中图分类号:TQ336.1+2 文献标识码:D

由慕建富申请的专利(专利号 99220716, 公布日期 2000-03-29)“内胎”涉及车用充气内胎。由于胎体为两只端头封闭的环形囊状胎体,在胎体封闭端头内侧 1~5 cm 处安装了气门嘴总成,更换内胎时无需拆下车轮;而修补内胎时,可将内胎直接取下修补,具有操作简便、省时省力的优点,特别适用于摩托车或自行车等轻便车辆。