

要求。

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## Application of Highly Dispersed Silica HPS35GR in Tread Compound of Steel-belted Radial Tire

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**Abstract:** The application of highly dispersed silica HPS35GR in the tread compound of steel-belted radial tire was studied. The results showed that replacing silica 2115MP with an equal amount of highly dispersed silica HPS35GR resulted in little difference in the vulcanization characteristics of the compound, and the physical properties of the vulcanizate before and after aging were comparable. The flocculation effect of silica HPS35GR in the compound was weaker than that of silica 2115MP. The vulcanizate filled with silica HPS35GR showed better wet grip performance, lower rolling resistance and smaller abrasion.

**Key words:** highly dispersed silica; steel-belted radial tire; tread compound; physical property; flocculation

### 实心轮胎成型机

由赛轮集团股份有限公司申请的专利(公布号 CN 118650918A, 公布日期 2024-9-17)“实心轮胎成型机”,可用于实心轮胎的缓冲胶成型和胎面胶成型,主要包括缓冲胶成型装置、胎面胶成型装置、装卸装置和存放装置。缓冲胶成型装置和胎面胶成型装置沿第1预设轨迹依次排列设

置;装卸装置位于缓冲胶成型装置和胎面胶成型装置的一侧,用于夹取底部胶筒或胎坯以及卸载胎坯;存放装置设置在缓冲胶成型装置的一侧,用于存放底部胶筒。本发明能有效解决实心轮胎在生产过程中装卸胎坯主要依靠人工完成的技术问题。

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