

酯轮胎的操控性能并未因轮胎结构的改变而有所减弱。

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Study on Cornering Rolling Performance of Polyurethane Radial Tire

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Abstract: A model of radial plate polyurethane tire which combined polyurethane wheel disk and rubber tread was established, and the mechanical performance, grounding performance and handling performance of the tire under cornering rolling condition were analyzed by Abaqus finite element software. The results showed that, compared with radial rubber tire, the force distribution of tread and belt cord of the polyurethane radial tire was more uniform, which could effectively prevent the separation of belt. It was found that the upper and lower ends and central part of the support plate were more likely to be damaged due to fatigue, which made the design of support plate structure very critical. In addition, the cornering stiffness and aligning stiffness were almost the same.

Key words: polyurethane radial tire; cornering rolling; grounding pressure distribution; finite element analysis

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美国《现代轮胎经销商》(www.moderntire-dealer.com)2015年6月10日报道:

固特异轮胎和橡胶公司与中国益海粮油工业有限公司达成稻壳灰白炭黑供货协议。固特异2015年将在中国普兰店工厂生产的消费轮胎中开始使用这种白炭黑,轮胎将在中国出售。

固特异称其过去两年一直在其创新中心对稻壳灰白炭黑进行测试,发现稻壳灰白炭黑对轮胎性能的影响与传统来源白炭黑相当。

董事长兼首席执行官 Richard J. Kramer 称,“这种新型白炭黑对环境有益,表现在减少垃圾掩埋的浪费、生产过程节能、有助于提高轮胎的燃油

效率多个方面。”

联合国粮农组织称,世界上每年产出7亿多吨水稻,处理这些稻壳是一项环境大挑战。

稻壳通常用于燃烧发电,以减少填埋量。虽然将稻壳灰转换成白炭黑已经有几年了,但是只有最近研究出的加工方法能够使白炭黑的等级高到可以用于轮胎。

白炭黑作为补强剂用于轮胎胎面胶中。与轮胎传统补强剂炭黑相比,白炭黑可以降低滚动阻力,从而改善车辆的燃油经济性。此外,白炭黑还对轮胎的湿路面牵引性能有积极影响。

除与益海签订协议外,固特异还在与其他供应商进行谈判。协议的财务细节未被公布。

(马晓摘译 许炳才校)