

表1 成品轮胎的物理性能测试结果

项 目	测试结果	GB/T 2981—2008
邵尔A型硬度/度	64	55~70
拉伸强度/MPa	17.3	≥15.5
拉断伸长率/%	530	≥450
阿克隆磨耗量/cm ³	0.29	≤0.4
粘合强度/(kN·m ⁻¹)		
胎面-缓冲层	11.2	≥7.8
缓冲层-胎体帘布层	8.6	≥4.8
胎体帘布层间	7.0	≥4.8
胎侧-胎体帘布层	10.8	≥5.5

4.4 实际路试

装车试验结果表明,轮胎的各种性能优异,耐磨性能、支撑性能、操纵性能以及牵引性能好,负荷能力强,下沉量小。

5 结语

12.4—48 12PR R-7农业轮胎的充气外缘尺寸、物理性能和帘线性能均能达到相应国家标准和企业标准要求。轮胎批量生产过程中工艺稳定、外观质量良好,投入市场后,客户反馈该款轮胎牵引性能、耐磨性能和自洁性能良好,轮胎外观美观、大方,为公司创造了较好的经济效益和社会效益。

参考文献:

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Design on 12.4—48 12PR R-7 Agriculture Tire

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Abstract: The design on 12.4—48 12PR R-7 agriculture tire was described. In the structure design, the following parameters were taken: overall diameter 1 775 mm, width of cross-section 295 mm, width of running surface 275 mm, arc height of running surface 21 mm, bead diameter at rim seat 1 221 mm, bead width at rim seat 254 mm, maximum width position of cross-section (H_1/H_2) 0.73, using R-7 tread pattern, pattern depth 36 mm, block/total ratio 27%, and number of pattern pitches 18. In the construction design, the following processes were taken: using two-formula and three-piece structure for tread, 2 layers of 930dtex/2 nylon 6 dipped cord for breaker ply, 6 layers of high strength 1400dtex/2 nylon 6 dipped cord for carcass ply, using semi-drum building machine to build tires and curing press to cure tires. It was confirmed by the tests of finished tire that the peripheral dimension and physical properties met the requirements of relative national and enterprise standards.

Key words: agriculture tire; structure design; construction design

低氧化锌含量的轮胎胎侧胶及其制备方法

由江苏通用科技股份有限公司申请的专利(公开号 CN 108976504A, 公开日期 2018-12-11)“低氧化锌含量的轮胎胎侧胶及其制备方法”,涉及一种低氧化锌含量的轮胎胎侧胶及其制备方法,采用以下工艺步骤制备。(1)一段混炼:将天然橡胶、顺丁橡胶、炭黑N375、氧化锌、硬脂酸、增粘树脂、芳烃油、防老剂RD、防老剂4020和B型微晶蜡投入密炼机中进行混炼,转子转速为40~55 r·min⁻¹,压砷压力为4.0~5.5 MPa,排胶

温度为150~155℃,得到一段混炼胶。(2)二段混炼:将一段混炼胶、硫黄、硫化剂A、硫化剂B、促进剂TBBS和防焦剂CTP投入密炼机中进行混炼,转子转速为15~25 r·min⁻¹,压砷压力为4.0~5.5 MPa,排胶温度为100~105℃,得胎侧胶。本发明能够减小氧化锌在轮胎配方中的用量,降低轮胎使用过程中对环境的“锌”污染,同时又能降低胎侧胶的动态滞后损失和拉断永久变形并提高抗硫化返原性能,从而延长轮胎的使用寿命。

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