

- 路[J]. 橡胶工业, 2019, 66(8): 883-886.
- [2] 王瑞华, 雍占福, 王文峰, 等. 基于CATIA的复杂花纹轮胎施工设计[J]. 轮胎工业, 2019, 39(1): 6-8.
- [3] 董玉德, 宋忠辉, 陈进富, 等. 面向轮胎点云的胎面花纹边界特征提取[J]. 计算机辅助设计与图形学学报, 2017, 29(5): 939-949.
- [4] 石亦平, 周玉蓉. ABAQUS有限元分析实例详解[M]. 北京: 机械工业出版社, 2006: 137-138.
- [5] 庄继德. 现代汽车轮胎技术[M]. 北京: 北京理工大学出版社, 2001: 1-10.
- [6] 王鹏. 不同轮胎花纹非均匀荷载下沥青路面三维有限元分析[J]. 工程力学, 2012, 29(5): 237-241.
- [7] 刘锋, 李丽娟, 杨学贵. 轮胎与地面接触问题的非线性有限元分析[J]. 应用力学学报, 2001, 18(4): 141-146.
- 收稿日期: 2021-05-24

Design of 115/70R16 Passenger Car Radial Tire for Electric Vehicle

GAO Xianjie, CHEN Hua, GAO Ke, ZHENG Wenyun

(Zhongce Rubber Group Co., Ltd, Hangzhou 310018, China)

Abstract: The design of 115/70R16 passenger car radial tire for electric vehicle was described. In the structure design, the following parameters were taken: overall diameter 564 mm, cross-sectional width 130 mm, width of running surface 92 mm, arc height of running surface 4.0 mm, bead diameter at rim seat 404.3 mm, bead width at rim seat 114 mm, maximum width position of cross-section (H_1/H_2) 0.971 6, five-pitch arrangement for the tread pattern, pattern depth 5.5 mm, block/total ratio 71.48%, and number of pattern pitches 62. In the construction design, the following processes were taken: using three-formula and four-piece tread construction, 2×0.30 ST steel cord for the belt layer, high modulus and low shrinkage polyester dipped cord for carcass, and using two stage building machine to build tire and tire shaping curing press to cure tire. It was confirmed by the finished tire test that, the inflated peripheral dimension, strength performance, bead unseating resistance, bead pressure, endurance performance, low pressure performance and high speed performance reached the requirements of the corresponding design and standards, the rolling resistance met the requirements of electric vehicle enterprises standards, the tire rigidity was good, and the static grounding pressure distribution was uniform.

Key words: passenger car radial tire; electric vehicle; structure design; construction design; finished tire performance

桂林橡胶轮胎定型硫化机验收

日前, 桂林橡胶机械有限公司(简称桂林橡胶) 1630双模机械式轮胎定型硫化机通过验收, 于2021年9月初发货美洲。

1630双模机械式轮胎定型硫化机主要用于硫化载重轮胎, 是欧美客户拓展其国外工厂产能的重要设备。根据客户需求, 该批次硫化机经过优化升级, 达到同款机型“顶配”。在产品安全性能方面, 增加了安全销以及独立的安全系统自动控制等新功能, 大幅提高了轮胎硫化时工人作业的安全系数。符合 OSHA, ANSI, CE, PLr LEVEL

D. 等一系列国际安全、健康规范。此外, 通过优化, 该设备开合模时间缩短1/3以上, 生产效率显著提升, 管路系统等采用性能更高的保温材料, 降低了蒸汽能源消耗。

由于桂林橡胶总部、客户总部、客户海外工厂地处3个不同国家, 本次在线验收采用三方同步连线方式, 桂林橡胶通过直播展示了16个项目精度检测和设备动作, 数据全面、细致、精确。经检验, 该批设备各项参数全部达到国际标准, 顺利通过验收。

(摘自《中国化工报》, 2021-09-08)