

Design on 215/65R16C Light Truck and Bus Snow Tire

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Abstract: The design on 215/65R16C light truck and bus snow tire was introduced. In the structural design, the following parameters were taken: overall diameter 682 mm, cross-section width 222 mm, width of running surface 174 mm, arc height of running surface 8 mm, bead diameter at rim seat 404.2 mm, bead width at rim seat 184 mm, maximum width position of cross section (H_1/H_2) 1.07, using a combination design of zigzag longitudinal grooves and large angle transverse grooves for tread pattern, pattern depth 9.5 mm, block/total ratio 70%, and number of pattern pitches 34. In the construction design, the following processes were taken: using a special formula compound with good low-temperature resistance for the tread, 2 layers of 1300dtex/2 polyester cord fabric for the carcass, 2 layers of 2 + 2 × 0.35HT steel cords for the belt, using two-stage building machine to build tires and B type dual-mode hydraulic curing press to cure tires. The test results of the finished tires showed that the inflation peripheral dimension, strength, high-speed performance, durability, rolling resistance, wet grip, snow grip and outdoor noise of the tire met the requirements of corresponding standards.

Key words: light truck and bus snow tire; structure design; construction design; finished tire performance

轮胎企业掘金新能源汽车市场

随着新能源汽车市场占有率稳步提升,新能源汽车轮胎需求大幅增加。在此背景下,国内外轮胎企业积极布局新赛道,抢占新能源汽车市场机遇。

2023年5月,韩泰iON新能源汽车轮胎家族正式登陆中国市场,包括iONSTAS舒适型新能源汽车轮胎和iONEvo高性能新能源汽车轮胎两款产品;而2022年3月,倍耐力在北美地区也推出了首款专为新能源汽车开发的PZeroAllReasonPlus系列轮胎。

国内素有“中国轮胎看山东”的说法。目前山东玲珑轮胎股份有限公司(简称玲珑)、青岛双星轮胎工业有限公司(简称双星)、山东华盛橡胶有限公司(简称华盛)、东营市方兴橡胶有限责任公司、万达宝通轮胎有限公司、山东雄鹰轮胎集团有限公司等企业均将新能源汽车轮胎作为研发重点。其中,玲珑在新能源汽车专用轮胎方面已积累了一定的研发经验,其为新能源汽车专门开发

的EV100轮胎和POWERSAVER轮胎在专业评比中表现良好。双星将最先进的生产线用于新能源汽车轮胎的生产,新能源汽车轮胎销量占到轮胎总销量的20%左右。

在业内看来,研发推出环境友好的新能源汽车轮胎产品已成为山东轮胎企业高质量发展的压舱石,山东轮胎企业也正着力从配方、胎体设计、材料等方面加快研发。比如华盛研发改进的聚氨酯超静音轮胎在日常用车环境下噪声可降低6~10 dB,并针对电动汽车不配备备胎的问题,推出了轮胎自修复技术。从市场来看,新能源汽车轮胎的价格要比普通轮胎高一点,但从性能、续航、使用寿命等角度考虑,新能源汽车轮胎的综合性价比也会比普通轮胎更高一些。当前,不少轮胎企业开始扩大新能源汽车轮胎产能。与此同时,新能源汽车轮胎的推广步伐也在加快,例如2023年以来,广饶县实施了境外市场开拓“百展计划”,推动广饶轮胎企业集体出海。

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