

实验表明,在车间通风较好的情况下,胎面和胎坯停放一定时间,残余水分一般可以完全挥发。

(2)在二段成型下压辊压实胎面及带束层过程中,压辊是否能压实凹槽部位?经外观及X光检验,均未发现这种轮胎的胎面部位有气泡,因此可以认为压辊可以达到完全压实的效果。

(3)二段成型上胎面时,如果操作不当,导致胎面上偏,是否会有影响?在制造试验胎的过程中,我们有意将1条轮胎的胎面上偏3~5 mm,结果经外观检验未发现有任何外观毛病,而且经X光检验也看不出带束层帘线有任何异常。

(4)对均匀性检测结果有无影响?在均匀性检测中各项检验结果均变化不大。从理

论上讲,均匀性检测中角度效应力主要与带束层帘线的排列有关,由于应用预成型胎面大大改善了带束层帘线的排列,轮胎的角度效应力应该有所下降,但在检测中未发现角度效应力下降,其原因尚待进一步分析。

(5)对动平衡检测结果有无影响?经实测,应用预成型胎面的轮胎的动不平衡度平均比应用普通胎面的轮胎的动不平衡度降低约40%~50%。

3 结语

应用胎面预成型技术可以有效地改善轮胎带束层帘线的排列,并可提高均匀性及动平衡检测通过率,但这种效果尚待通过批量生产轮胎做进一步验证。

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Application of Preformed Tread Technology to Improving Belt Cord Bending of Passenger Radial Tire

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Abstract The belt cord bending of passenger radial tire with conventional tread is mainly caused by the compound flow of green tire during vulcanization. A special preformed tread is designed to overcome this problem. The test shows that because the shape of preformed tread is very close to the tread shape of finished tire, the compound flow is significantly reduced during vulcanization. Thus, the bending of belt cord is eliminated, the uniformity and dynamic balance of finished tire are improved. But the results still need to be confirmed in the commercial production.

Keywords passenger radial tire, tread, belt

英国一公司研制自动吸气泡沫轮胎

英国哈蒙雷塑料研究所研制出一种自动吸气的泡沫轮胎。这种轮胎不用充气,而是充填了能自动吸气的泡沫塑料,而这种泡沫塑料的吸气特征是吸气量与它所受到的压力成正比,也就是说轮胎所受压力越大,

它吸入的气体越多;而压力减小时它又可释放出部分空气使该轮胎始终保持平衡的承压力。这种泡沫轮胎广泛适用于汽车、拖拉机、摩托车和自行车上。当然,它也不怕扎破和漏气。

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