

Study on Application of Activated Rubber Crumb to Truck Tire

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Abstract The influence of the addition of 40 mesh activated rubber crumb to the tread compound and 40 or 60 mesh activated rubber crumb to the sidewall and carcass ply compounds on the properties of the compounds was investigated on the basis of the existing production formula. The results showed that when 5 ~ 10 phr of 40 or 60 mesh activated rubber crumb was added to the tread, sidewall and carcass ply compounds, the flexibility, heat build-up, wear resistance, adhesion to cord and processibility of the compounds improved, but the tensile strength decreased; the endurance life of the 9.00 - 20 finished tire met the national requirements for A grade of tire, the 11.00 - 20 tire passed the high speed test at $100 \text{ km} \cdot \text{h}^{-1}$, and the better adhesion between different parts of tire was retained after the test. When the too high level of activated rubber crumb was added, the physical properties and processibility of the compound would decrease significantly resulting in the low puncture resistance of tire tread.

Key words activated rubber crumb, tire, dynamic property, endurance, tensile strength

进口波音飞机将装配国产航空轮胎

广西桂林曙光橡胶工业研究院研制的航空轮胎已经达到国外同类产品水平,使我国继法、日之后,成为少数几个取得美国联邦航空局颁发的航空轮胎《技术标准规定项目批准书》的国家,从而为我国航空轮胎进入美国乃至世界市场打下了良好的基础。

经中国民航总局与波音公司协商,波音公司将在我国航空公司订购的波音飞机上装配我国自产的航空轮胎,试飞成功后将颁发装机批准书。这显示出我国航空轮胎产业具有广阔的市场前景。

在国内航空轮胎市场上,虽然国产航空轮胎只占少部分,但国产航空轮胎价格相对便宜,货源有保证,翻新可就近解决,资金决算简单,不受国际市场和关税波动等因素的影响。专家认为,国产航空轮胎将因此受到

国内航空公司的青睐,市场扩展容量非常巨大。

航空轮胎是飞机上消耗最快的配件。目前,我国是世界上最具潜力的航空市场之一,世界航空轮胎巨头纷纷挤占我国航空轮胎市场,使国内航空轮胎业面临着巨大的压力。有关专家建议,现在是加快我国航空轮胎国产化进程的关键时候,国家有关部门应该在科研经费、税收及金融等政策上给予大力支持,使我国这一高新技术产业得以发展壮大,尽快建成拥有国际一流水平的航空轮胎生产基地。

据了解,桂林曙光橡胶工业研究院目前已开发成功波音系列 9 个机种共 19 个规格的大型航空轮胎,使我国成为继美、英、法、日等之后能生产大型航空轮胎的国家。

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