

失,表明其具有较低动态压缩生热。

3 结论

(1) 高活性间-甲树脂SL3020LFR胶料的硫化活性较高,其加工性能、老化前后的拉伸性能和粘合性能均符合载重轮胎胎体帘布胶的性能要求。

(2) 高活性间-甲树脂SL3020LFR胶料的动态滞后损失和动态压缩生热均比较低,预示着其可以改善载重轮胎的耐久性能和提高翻新价值。

参考文献:

- [1] 王强,焦生杰. 工程翻新轮胎生命周期的能量分析与评价[J]. 橡胶工业,2018,65(5):586-590.
- [2] Hamid Mohammadi, Roozbeh Dargazany. Thermo-Oxidative Aging[J]. Tire Technology International,2018 Review:54-56.
- [3] 高利,刘娟. 大型工程机械轮胎用高强度低生热基部胶配方开发[J]. 轮胎工业,2018,38(6):351-353.
- [4] Yasuhiro Ishikawa. Effects of Compounds Formulation on the Adhesion of Rubber to Brass Plated Steel Cord[J]. Rubber Chemistry and Technology,1984,57:855-877.

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Low Heat Generation Property of TBR Tire Carcass Ply Compound Using Highly Active Resorcinol Formaldehyde Resin

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Abstract: The application of new type highly active resorcinol formaldehyde resin SL3020LFR in the carcass ply compound of TBR tire was studied. The results showed that, compared with non-resorcinol formaldehyde resins compound, the vulcanization activity of the compound with SL3020LFR was higher, and the processability, tensile property before and after aging, and adhesion property were all in line with the property requirements of TBR tire carcass ply compound. Especially, the compound had low dynamic hysteresis loss and low dynamic heat generation property. Therefore, it could be used in TBR tire carcass ply compound to reduce tire rolling resistance and internal heat generation to improve durability and retreading value.

Key words: adhesive resin; highly active resorcinol formaldehyde resin; TBR tire; carcass ply compound; dynamic hysteresis loss; dynamic heat generation

连续式微波裂解设备及方法

由珠海格力绿色再生资源有限公司申请的专利(公布号 CN 110791304A, 公布日期 2020-02-14)“连续式微波裂解设备及方法”,涉及一种连续式微波裂解设备,属微波裂解技术领域,用于解决现有技术中存在的废轮胎无法在无氧条件下连续裂解的技术问题。该连续式微波裂解设备设置至少两个进料机构,能够交替地向裂解炉中输送物料,从而实现微波裂解连续作业;通过采用竖式裂解炉,无需通过充氮来隔绝空气,而是通过密闭的真空进料机构在重力作用下实现真空进料,从而能够实现真空微波裂解,因此该连续式微波裂解设备能够实现连续的真空微波裂解,有利于实现微波裂解工业化。

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由硼烷偶联剂材料改性的轮胎胎面胶胶料及制备方法

由潍坊顺福昌橡塑有限公司申请的专利(公布号 CN 110818960A, 公布日期 2020-02-21)“由硼烷偶联剂材料改性的轮胎胎面胶胶料及制备方法”,涉及一种由硼烷偶联剂材料改性的轮胎胎面胶及制备方法。胎面胶配方为橡胶 80~100, 中超耐磨炭黑 40~50, 硼烷偶联剂 1~3, 橡胶添加剂 10~20。胎面胶制备使用低温一次法胶料混炼系统,分两段混炼,一段混炼工艺为橡胶→中超耐磨炭黑、白炭黑、硼烷偶联剂、氧化锌、硬脂酸、防老剂→排胶→压片→冷却,二段混炼工艺为一段混炼胶→硫黄、促进剂、防焦剂→压片→冷却。

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