

参考文献:

- [1] 刘永涛,董为民,石路颖,等. 稀土顺丁橡胶的性能和应用[J]. 合成橡胶工业,2008,31(5):325-331.
- [2] 张咏梅. 稀土顺丁橡胶在我国的发展前景分析[J]. 经营管理者,2012,28(11):254-254.

- [3] Friebe L, Nuyken O, Obrecht W. Neodymium-based Ziegler/Natta Catalysts and Their Application in Diene Polymerization[J]. Adv. Polym. Sci., 2006, 204(11):1-154.

收稿日期:2017-05-25

Application of Neodymium-based Butadiene Rubber in Tread Compound of Truck and Bus Radial Tire

LIU Yuwan, FAN Binbin, YANG Yanping, ZHOU Jing

(Aeolus Tire Co., Ltd., Jiaozuo 454003, China)

Abstract: The application of neodymium-based butadiene rubber (NdBR) in the natural rubber (NR)/butadiene rubber (BR) blend based tread compound of truck and bus radial tire was studied. The results showed that when NdBR (BR CB22 and BR CB24) was applied to replace nickel-based butadiene rubber (NiBR) (BR9000) at equal weight, the F_{\max} of the tread compound increased, t_{90} and t_{100} were extended, the anti-reversion property was improved, the tensile properties, tear resistance, wear resistance, aging resistance and fatigue resistance were improved, and the dynamic heat build-up and the compression fatigue temperature rise were reduced. Compared with the tread compound with BR CB24, the dynamic heat build-up and the compression temperature rise of the tread compound with BR CB22 were lower, and overall performance was better. The finished tire with the tread compound containing BR CB22 possessed reduced rolling resistance.

Key words: neodymium-based butadiene rubber; truck and bus radial tire; tread compound; rolling resistance; heat build-up

天然橡胶列入欧盟关键原材料名单

中图分类号:TQ332 文献标志码:D

欧盟委员会近期更新了“关键原材料名单”,在对78种重要原材料进行评估后,将27种关键原材料纳入稀缺名单。这是欧盟自2008年将原材料战略提升为区域战略以来第2次更新原材料名单。

在欧盟此次更新的名单中,除了保留2014版名单中的18种关键原材料外,还新增了9种稀缺原材料。保留的18种关键原材料分别为锑、铍、硼酸盐、钴、焦煤、萤石、镓、锗、铟、菱矿石、天然石墨、铌、菱镁矿、铂族金属、重稀土、轻稀土、硅、钨。新增的9种稀缺关键原材料分别为天然橡胶、重晶石、铋、钨、氮、磷、钨、钽、钒,其中5种为稀有金属。天然橡胶是通过评估被新列为稀缺关键原材料中唯一的生物基原料。

在27种关键原材料中,4种原材料的主要来源

国为中国,分别为镁[94%(进口量占比,下同)]、锑(90%)、铋(84%)、天然石墨(63%);5种原材料对中国的依赖程度较高,分别为锗(43%)、重稀土(40%)、轻稀土(40%)、镓(36%)、铟(28%);欧盟天然橡胶的主要来源国为印度尼西亚(32%)、马来西亚(20%)、泰国(17%)和科特迪瓦(12%)。

欧洲轮胎和橡胶制造商协会(ETRMA)参与了欧盟关键原材料名单的修订。ETRMA秘书长Fazilet Cinaralp表示:“天然橡胶被列入稀缺关键原材料名单对于橡胶及轮胎行业非常重要,天然橡胶将因此受到应有的关注,处理天然橡胶供给问题时应得到更多的支持。ETRMA希望通过此举加强橡胶产业的竞争力,刺激天然橡胶生产,增强原材料供应风险意识,支持欧盟委员会在贸易协定谈判方面的努力,向不合理的贸易措施挑战。”

(朱永康)