

Rubber Compound Formulation for V-Belt with High Modulus Low Shrinkage Polyester Cord

Liu Shiduo

(Xinji Jinhao Rubber Co., Ltd., Xinji 052360, China)

Abstract: The rubber compound formulation for the V-belt with high modulus low shrinkage polyester cords as reinforcing material was studied. In the optimized formulation, the matrix material was NR/BR blend with the blending ratio of 70/30, the co-agents in the curing system were coupling agent Si69, anti-reversion agent TDB680 and benzoic acid, the reinforcing fillers were carbon black N774, carbon black N550, fume silica B-66 and inorganic reinforcing agent JC-069 with the mixing ratio of 70/20/50/10, and additives for better fatigue resistance and tear resistance were also applied. The experimental testing results showed that the physical properties, elasticity, fatigue resistance and adhesion property of the compound were good, and the heat build-up was low. The service life of the V-belt was long with the combination of the optimized rubber compound and high modulus low shrinkage polyester cords.

Keywords: high modulus low shrinkage polyester cord; V-belt; rubber compound; NR; BR; fatigue resistance; adhesion property

信息·资讯

美国炭黑需求温和增长

加拿大市场调查机构Tech Sci研究公司发布研究报告《美国炭黑市场：2020年预测与和机会》，预计2015—2020年美国炭黑需求量将以4.5%的复合年增长率增长。

美国是全球第二大炭黑生产国和消费国，其炭黑行业集中度非常高，主要制造商如卡博特公司、理查森炭业公司、欧利隆工程炭公司、大陆炭公司和印度博拉公司的炭黑占据了90%以上的市场份额。轮胎行业是美国炭黑的最大用户。随着各大轮胎制造商纷纷规划在美国扩大产能，以满足北美地区日益增长的轮胎需求，预计未来5年轮胎行业主导美国炭黑市场的

局面将越来越明显。汽车行业和建筑业的持续复苏将增大对工业橡胶制品的需求，从而进一步提振炭黑消费。为了生产出多样化的特色产品，塑料、油漆和涂料等行业对炭黑的需求不断增长。随着特种炭黑日趋向各种终端应用领域渗透，预期未来几年特种炭黑也会对市场产生积极的影响。

报告还指出，虽然未来5年美国炭黑市场有望继续增长，但美国对炭黑业的严格监管迫使轮胎厂商考虑布局亚洲，积极扩大在亚洲的轮胎产能。

艾迪