

1, 硫化剂 TCY 1.5, 硫黄 0.3, 促进剂 DM 0.25, 氧化锌 7; 耐热老化性能较好的硫化体系配方为: 硫化剂 DCP 4, 硫化剂 TCY 2, 硫黄 0.45, 促进剂 DM 0.25, 氧化锌 3。

(3) 正交试验范围内, EPDM/ACM 并用胶综合性能较好的硫化体系配方为: 硫化剂 DCP 3, 硫化剂 TCY 2, 硫黄 0.3, 促进剂 DM 0.25, 氧化锌 5。

参考文献:

- [1] 张玉龙, 张晋生. 特种橡胶及应用[M]. 北京: 化学工业出版社, 2011.
- [2] 张殿荣, 辛振祥. 现代橡胶配方设计[M]. 北京: 化学工业出版社, 2001.
- [3] 刘振学, 黄仁和, 田爱民. 实验设计与数据处理[M]. 北京: 化学工业出版社, 2005.
- [4] 邓华, 罗权焜. 硫化体系对氯丁橡胶硫化胶性能的影响[J]. 特种橡胶制品, 2009, 30(1): 36-39.

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Optimization on Curing System of EPDM/ACM Blends by Orthogonal Design Method

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Abstract: The effects of addition levels of curing agent and accelerator of DCP/TCY curing system on the physical properties of EPDM/ACM blend were investigated by using orthogonal design method. The results showed that, the addition levels of sulfur and zinc oxide had very significant effect on the tensile strength of EPDM/ACM blends, and the addition level of curing agent DCP also had some influence on it. The addition levels of DCP, TCY and sulfur had very significant effect on the tear strength of the blends, and zinc oxide showed certain influence on it. In addition, curing agent DCP, accelerator DM and zinc oxide had influence on the aging resistance. The optimized curing system was as follows: curing agent DCP 3, curing agent TCY 2, sulfur 0.3, accelerator DM 0.25, and zinc oxide 5.

Key words: EPDM; ACM; blend; orthogonal design; physical property

一种耐高低温油封用橡胶

中图分类号: TQ333.7; TQ336.4⁺2 文献标志码: D

由烟台润蚨祥油封有限公司申请的专利(公开号 CN 103159991A, 公开日期 2013-06-19)“一种耐高低温油封用橡胶”, 涉及的一种耐高低温油封用橡胶配方为: 丁腈橡胶(NBR) 30~70, 氢化丁腈橡胶(HNBR) 70~30, 白炭黑 30~50, 快压出炭黑 30~50, 氧化锌 4~6, 硬脂酸 0.5~2, 防老剂 445 0.5~1.5, 有机硅加工助剂 WS180 1~1.5, 增塑剂 TP-759 5~20, 交联剂 DCP 1~3, 助交联剂 TAIC 1~2.5。该产品具有耐油和耐温范围广、成本和价格适中的特点。

(本刊编辑部 赵 敏)

一种高阻燃高耐热合成橡胶及制备方法

中图分类号: TQ333.1; TQ336.4⁺2 文献标志码: D

由宜兴市聚金信化工有限公司申请的专利(公开号 CN 103183851A, 公开日期 2013-07-03)“一种高阻燃高耐热合成橡胶及制备方法”, 涉及的高阻燃高耐热合成橡胶包含丁苯橡胶(SBR)、气相法白炭黑、氢氧化铝、2,4'-二羟基二苯砜、双酚 A、环氧氯丙烷和双 25 硫化剂。其制备步骤为: 将 SBR、气相法白炭黑、2,4'-二羟基二苯砜放入混炼机中混炼 0.3~0.8 h; 然后加入氢氧化铝、双酚 A 和环氧氯丙烷继续混炼 1~2 h; 加入双 25 硫化剂, 升温至 190~215 °C 进行硫化; 硫化 2~3 h 制得产品。

(本刊编辑部 赵 敏)