化动力学的研究结果表明,采用硫黄硫化的EPDM 与 CR 共混可以得到力学性能比较好的硫化胶, CR 的硫化速度较 EPDM 对温度的依赖性小。

- (3) EPDM/CR 共混物具有耐老化、耐酸、耐辐射、粘合性能好等特点,在一定程度上综合了 EPDM 和 CR 的优点。
- (4)DSC 和 DVA 分析表明共混物有两个明显的玻璃化温度, 为热力学不相容体系。

参考文献

- 1 朱 敏.橡胶化学与物理.北京:化学工业出版社.1984 376
- 2 Tanmachi Masami. The mosetting polymer blends with excellent ozone resistance. JP 90189342
- 3 Setna D K, White J L. Flow visualization of compatibilizing agents on the mixing of elastomer blends and the effect on phase morphology. Polym. Eng. Sci., 1991, 31(24): 1742 ~ 1754

收稿日期 1997-07-20

Study on EPDM/CR Blend

Zhang Xiangfu, Zhang Yinxi, He Yunxiang and Zhu Yutang
(Shanghai Jiaotong University 200240)

Abstract The effects of blending ratio, curing system, HAF content and mixing technology on the properties of EPDM/CR blends were studied. The physical properties, hot nitric acid resistance, hot air aging property, radiation resistance and compatibility of the blends were investigated. The test results showed that the physical properties of the blend vulcanizate surpassed the additive physical properties of two rubber vulcanizates when EPDM was mixed with all black and then blended with CR; the good physical properties could be obtained only when EPDM in the blend was cured with sulfur. The study on vulcanization kinetics revealed that the dependence of vulcanization rate of CR on the temperarure was less than that of EPDM. The results from DSC and DVA analysis showed that the blend possessed two distinguished glass transition temperatures and was a thermo-mechanically incompatible system. The developed EPDM/CR blend featured good aging property, hot nitric acid resistance, radiation resistance and adhesion.

Keywords EPDM, CR, blending technology, acid resistance, radiation resistance, compatibility

山西省化工研究所研制成功多功能 硫化剂 DL-268

山西省化工研究所研制成功多功能硫化剂 DL-268。 DL-268 系 马来 酰 亚 胺 类 化 合物, 既是硫化剂, 也具有改性、抗硫化返原、防焦烧等功效, 适用于通用橡胶和特种橡胶, 并适合高温硫化。

在轮胎中,使用由 DL-268 和硫黄组成的硫化体系,能改善耐热性、耐久性、帘线与

橡胶的 粘合性,并能防止硫化返原。在EPM,NBR,BIIR 和 CR 等橡胶中,用 DL-268 作辅助硫化剂,能提高耐热性及强度,改善压缩变形性能,并能减小过氧化物类硫化剂的用量。在硫调节型 CR 中使用 DL-268,能防止焦烧,还可提高胶料的流动性。另外,DL-268 还能用于氯磺化聚乙烯,提高耐热等级,改善电性能。

(山西省化工研究所 杨旭东供稿)