

参考文献

(9): 515 ~ 520

- 1 卢咏来, 张立群, 田 明, 等. 交联聚烯烃热塑性弹性体的性能研究 I. Engage 8180 的结构性能. 橡胶工业, 1999, 46

收稿日期 1999-05-12

Study on Properties of Cross-linked Thermoplastic Polyolefin Elastomer

II. Stress-strain Characteristics and High Temperature Performance

Lu Yonglai, Zhang Liqun, Wu Youping, Tian Ming, Wu Shemao and Feng Yuxing

(Beijing University of Chemical Technology 100029)

Abstract The static and dynamic properties, especially the stress-strain characteristics and the properties at high temperature of crosslinked thermoplastic polyolefin elastomers (POEs, Engage-8003, 8150, 8180, 8200) filled with pretreated carbon black by silane coupling agent (V TPS) were investigated and the relationship between their structures and properties was discussed. The static compression test at constant strain was made with different mould-opening ways at high temperature (120 °C). The results showed that the POEs with higher Mooney viscosity (8003, 8150 and 8180) possessed better dynamic compression fatigue resistance and comprehensive properties, especially 8003 compound had higher tear resistance at normal temperature; but the tensile strength of POE compound decreased dramatically at high temperature, and its tear resistance was somewhat lower than that of EPDM or SBR compound; the static compression test results of POE at high temperature (120 °C) were strongly dependent upon the mould-opening way; and the POEs' characteristics above related tightly with the existence and amount of crystal domain in them.

Keywords polyolefin elastomer, crystallinity, stress-strain characteristics, high temperature performance

国内简讯 3 则

△一种结构优、强度高、质量好的线绳橡胶三角带, 日前由无锡市橡胶厂研制成功并投入批量生产。橡胶三角带是拖拉机、农用汽车等运输工具的传动带。该厂为使产品更好地适应广大农村市场的需要, 集中科研人员, 在原料选取及生产工艺上进行了大量试验。计划年产橡胶三角带 350 万条。

△江西昌九化工集团江氨化工有限责任公司自筹资金兴建的江西省最大的一套白炭黑装置一期工程, 年产 1 万 t 白炭黑装置 7 月 27 日建成并一次开车成功, 生产出合格产品, 主要经济技术指标达到国内先进水平。目前该装置运行稳定。随后, 该公司将着手进行第二期工程建设, 届时江氨白炭黑生产能力将达到 2 万 t。

△近日, 福建泉州市华侨大学材料物理化学研究所研制成功新型橡胶补强剂。这种补强剂是将绢云母进行超细粉碎和表面改性后, 由超细改性绢云母粉制成的, 其补强效果接近或

达到使用白炭黑的水平, 不仅降低了橡胶制品的生产成本, 同时也提高了绢云母的实用价值。

(以上摘自《中国化工报》)

欢迎订阅《中国化工市场快讯》周刊及《化工科技市场》月刊

《中国化工市场快讯》周刊全面报道化工产品市场信息, 每期有上千种化工产品的供求信息 4 000 多条, 蕴藏大量商机, 是采购化工产品的得力助手。全年订价 600 元。

《化工科技市场》月刊全面报道具有广阔市场前景的科技成果信息, 每期有数百条最新实用化工科技信息与化工机械产品信息, 是寻找实用化工技术与采购化工机械的必备读物。每期定价 9.8 元。

欲订以上两刊者请与中国化工经济信息网发行部联系, 欢迎索取样刊。通讯地址: 北京 2809 信箱 中国化工经济信息网。邮编: 100044。电话: (010)62277136。