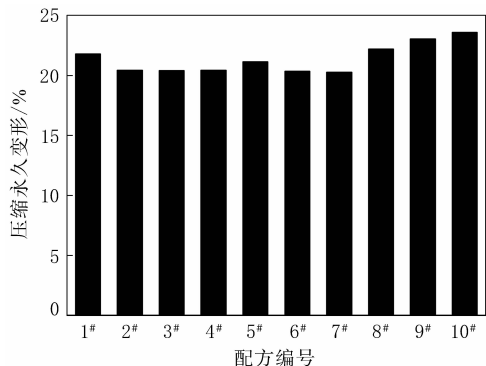




测试条件为:100℃×22 h;压缩率 25%。

图5 流动分散剂对 EPDM 硫化胶压缩永久变形的影响

3 结论

(1)流动分散剂 RL20 和 WB42 具有良好的填料分散和外润滑作用,明显改善了 EPDM 胶料的流动性,其效果优于流动分散剂 AC617。

(2)流动分散剂 RL20 和 WB42 使 EPDM 胶

料的 Payne 效应减弱,改善了填料分散性,而流动分散剂 AC617 则无明显效果。

(3)3 种流动分散剂对 EPDM 胶料的硫化特性、硫化胶的物理性能和耐热空气老化性能无明显影响,加入流动分散剂 RL20 和 WB42 的硫化胶压缩永久变形有所减小,而加入流动分散剂 AC617 的硫化胶压缩永久变形略有增大。

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Application of Three Flowing and Dispersing Agents in EPDM Compound

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Abstract: The influence of flowing and dispersing agent RL20, WB42 and AC617 on the properties of EPDM compound was investigated. The results showed that, in terms of improving compound flowability, RL20 and WB42 were better than AC617, and the filler dispersion was improved by adding RL20 and WB42, while AC617 had no significant effect. All three flowing and dispersing agents had little effect on the curing behavior, physical properties and thermal aging property of compound. It was found that the compression set of vulcanizate with RL20 and WB42 was slightly decreased, but the compression set of vulcanizate with AC617 was slightly increased.

Key words: flowing and dispersing agent; EPDM; flowability; filler dispersity; compression set

一种提高再生绉片胶塑性的新方法

中图分类号:TQ332.1+4 文献标志码:D

由际华三五一七橡胶制品有限公司申请的专利(公开号 CN 101791831A, 公开日期 2010-08-04)“一种提高再生绉片胶塑性的新方法”, 提供了一种能提高再生绉片胶塑性的新方法。该方法包括 3 个步骤。①生胶破料: 首先将再生绉片胶在开炼机 1 mm 以下的辊距中薄通成片状, 片厚为 3~7 mm, 然后放入洒有少量碳酸钙的铝盒

中。②塑化: 将装有绉片胶的铝盒放入塑化蒸缸, 开直接蒸汽和间接蒸汽同时升温至 135℃后关闭直接蒸汽, 然后在 135~139℃的温度下保持 40 min, 排气出缸, 排气出缸时间不计入塑化时间内, 整个塑化过程中风压为 0.3~0.5 MPa。③检验合格后待用。该发明采用塑化蒸缸, 取消了原工艺中的塑炼工序, 提高了劳动生产率, 具备了连续、批量生产的能力, 同时减少了能耗, 有利于环保。

(本刊编辑部 马 晓)