

- ated Acrylonitrile-Butadiene Rubber(CNBR)-Clay Nanocomposites by Co-coagulating Rubber Latex and Clay Aqueous Suspension[J]. Journal of Applied Polymer Science, 2001, 82(11): 2842-2846.
- [8] Liang Y R, Cao W L, Zhao L, et al. A New Strategy to Improve the Gas Barrier Property of Isobutylene-Isoprene Rubber/Clay Nanocomposites[J]. Polymer Testing, 2008, 27(3): 270-276.
- [9] 陈飞, 唐宏科. 丙烯酸共聚物-有机膨润土复合高吸水性树脂的研究[J]. 安徽农业科学, 2010, 38(18): 9792-9794.
- [10] 陈立恒, 陈英红, 郑怡磊. PEG 改性天然钠基蒙脱土及其与 PET 纳米复合材料的结构与性能[J]. 塑料科技, 2009, 37(5): 40-44.
- [11] 陈佩贞. 新会区有机溶剂职业危害企业情况调查[D]. 广州: 中山大学, 2008.

收稿日期: 2012-06-17

Influence of Organic Solvent on Structure and Properties of Organic Clay/NBR Nanocomposites

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Abstract: The organic clay was modified by pre-expansion method, and the influence of type and addition level of organic solvent on the properties and structure of organic clay/NBR nanocomposites were investigated. The results showed that, compared with those prepared by melt method, the physical properties of organic clay/NBR nanocomposites prepared by pre-expansion method were better. It was found that the optimal blend ratio of organic clay and acrylic acid was 1 g : 1 mL, and the optimal blend ratio of organic clay and *n*-butanol was 1 g : 4 mL. Moreover, the composite prepared by using acrylic acid possessed better physical properties and micro phase structure, compared with that prepared by using *n*-butanol.

Key words: NBR; organic clay; organic solvent; nanocomposite; microstructure; pre-expansion method

三元乙丙单面复合耐根穿刺防水卷材

中图分类号: TQ336.9 文献标志码: D

由孟祥旗和张雷申请的专利(公开号 CN 202248567U, 公开日期 2012-05-30)“三元乙丙单面复合耐根穿刺防水卷材”, 涉及的耐根穿刺防水卷材采用复合制板技术, 其上三元乙丙橡胶(EPDM)防水层和下 EPDM 防水层之间夹芯铝胎基, 组成 EPDM 铝胎基防水层, 下 EPDM 防水层外侧为增强聚酯无纺布, EPDM 防水层在制备过程中添加增塑剂。该卷材耐植物根系穿刺性能持久, 可以冷施工、水泥湿铺, 操作方便, 并具有粘合力强、稳定性、低温柔性、耐热性、耐化学腐蚀性和抗辐射能力好等优点。

(本刊编辑部 马 晓)

体育场馆用多层式弹性塑胶地垫

中图分类号: TQ336.6 文献标志码: D

由江阴市文明体育塑胶有限公司申请的专利(公开号 CN 202247594U, 公开日期 2012-05-30)“体育场馆用多层式弹性塑胶地垫”, 涉及的体育场馆用多层式弹性塑胶地垫由 2 层厚度为 5~30 mm(10~15 mm 较佳)的热塑性聚氨酯弹性体表面层和 1 层厚度为 10~50 mm(20~25 mm 较佳)的聚氯乙烯芯层构成, 表面层和芯层长宽尺寸相同, 2 层表面层分别置于芯层上下侧, 边沿与芯层对齐, 并粘接在一起。该地垫解决了现有体育场馆塑胶地垫使用一段时间后表面出现折痕、发粘, 弹性变差, 寿命缩短的问题。

(本刊编辑部 马 晓)