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Effect of Carbon Black on Properties of AEM Vulcanizate

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Abstract: The effects of types and addition level of carbon black on the curing behavior, physical properties, heat aging resistance and oil resistance of AEM compound were investigated. The results showed that, as particle size of carbon black increased, the scorch time of AEM compound extended, physical properties and heat aging resistance decreased, and oil resistance was improved. The comprehensive properties of carbon black N660/AEM compound were the best. As the addition level of carbon black N660 increased, the scorch time of AEM compound shortened, physical properties were improved at first and then deteriorated, oil resistance was improved, and heat aging resistance was decreased. When the addition level of N660 was 60 phr, the comprehensive properties of carbon black N660/AEM compound were the best. When the blend ratio of carbon black N550/N774 was 40/40, the comprehensive properties of AEM compound were also good.

Key words: carbon black; AEM; heat aging resistance; oil resistance; physical property

喷涂速凝橡胶沥青防水涂料

中图分类号: TE626.8⁺6 文献标志码: D

由王恒傲申请的专利(公开号 CN 103102809A, 公开日期 2013-05-15)“喷涂速凝橡胶沥青防水涂料”, 涉及的喷涂速凝橡胶沥青防水涂料配方为: 沥青 50~60, 专用乳化剂 2~3, 橡胶乳液 10~20, 分散剂 0~2, 稳定剂 0~2。与现有技术相比, 该发明具有以下几个方面的优点: (1) 操作简单、快捷、方便、工期短, 效率高, 单机双枪(3人组)8 h 连续喷涂(膜厚 2 mm)面积在 1 500 m² 以上, 且不受基面结构复杂程度的影响。(2) 该产品由多种复合橡胶通过互穿网络技术和纳米技术复合而成, 利用促凝催化原理使产品迅速初凝, 成膜速度快, 初凝固化时间仅为 3~5 s, 能有效减少施工现场产品表面被异物粘接和破坏的现象, 同时避免普通涂料易流淌的弊病。

(本刊编辑部 赵 敏)

用于防水卷材的反应性丁基橡胶

自粘层及其加工工艺

中图分类号: TQ333.6 文献标志码: D

由常熟市三恒建材有限责任公司申请的专利(公开号 CN 103102843A, 公开日期 2013-05-15)“用于防水卷材的反应性丁基橡胶自粘层及其加工工艺”, 涉及的用于防水卷材的反应性丁基橡胶自粘层配方为: 丁基橡胶 20, 乙烯醋酸乙烯酯共聚物 1.0~4.2, 增粘树脂 16.5~20.5, 增粘剂 18.4~24, 炭黑 12~18, 轻质碳酸钙 9~14, 功能助剂 8, 防老剂 0.8, 偶联剂 0.5, 硫化剂 1.8。上述配方组分通过混炼、捏合、挤出成型制成丁基橡胶自粘层。该丁基橡胶自粘层能与现浇混凝土发生化学反应形成一个整体, 形成永久性防水层并具有自愈功能, 还能与各种高分子防水卷材复合组成功能性防水材料, 适用于各种地下防水工程。

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