

(2)当分别填充 1 份氧化石墨烯、石墨、炭黑和 WMNT 时,氧化石墨烯填充 TPU 复合材料的物理性能提高幅度最大,其补强性能最好,储能模量增幅最大。

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Preparation and Properties of Graphene Oxide/ Polyurethane Composites

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Abstract: The graphene oxide/thermoplastic polyurethane(TPU) composites were prepared by solution blending and casting film method, and their structure and properties were investigated. The results showed that, graphene oxide was well dispersed in the TPU matrix. As the addition level(within 0~5 phr) of graphene oxide increased, the tensile strength of graphene oxide/TPU composites increased, and the elongation at break didn't have any obvious decrease. Compared with carbon nanotube, graphite or carbon black, when the addition level of filler was 1 phr, the TPU composites filled with graphene oxide showed better physical properties.

Key words: graphene oxide; thermoplastic polyurethane; composite; physical property

一种用丙烯酸酯橡胶改性的软质 PVC 塑料

中图分类号:TQ333.97;TQ334.2 文献标志码:D

由江苏恒峰线缆有限公司申请的专利(公开号 CN 101942161A, 公开日期 2011-01-12)“一种用丙烯酸酯橡胶改性的软质 PVC 塑料”,涉及的丙烯酸酯橡胶改性软质 PVC 塑料配方为: PVC树脂 90~110, 轻质碳酸钙 35~45, 丙烯

酸酯橡胶 15~25, 乙烯-丙烯酸共聚物 2~5, 增塑剂 55~65, 复合稳定剂 3~7, 润滑剂 2~5, 抗氧剂 0.1~0.5。该丙烯酸酯橡胶改性软质 PVC 塑料具有优异的耐热油和耐热氧化等性能,可用于制备电缆护套,特别是矿用电缆护套。

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