

量的增加,WSFRC的拉伸和压缩疲劳性能下降;与同样硬度的纯炭黑胶料相比,WSFRC的疲劳温升更低;WSFRC的疲劳性能随纤维排列方向的不同而变化。

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Mechanical Properties and Fatigue Endurance of Waste Short Fiber/Rubber Composite

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Abstract The surface characteristics and the length distribution of the waste short fiber from reclaimed rubber were investigated. The mechanical properties of WSRFC (the waste short fiber/rubber composite) and the influence of the surface treatment of waste short fiber on them were studied. The potential applications of WSRFC to the rubber industry were discussed. The fatigue endurance of WSRFC was measured through the dynamic extension and compression test. The results showed that the extension and compression fatigue endurance decreased as the short fiber level increased; the fatigue temperature rise of WSRFC was lower than that of conventional black compound with the same hardness; the fatigue endurance of WSRFC varied with the orientation of short fiber.

Keywords short fiber, rubber, composite, fatigue endurance

热塑性聚酯橡胶材料投放市场

国家受力结构工程塑料工程技术研究中心研制的年产300t热塑性聚酯弹性体装置近日完成了试车。热塑性聚酯弹性体又称聚酯橡胶,它是聚酯、聚醚的嵌段共聚物,通过调整各嵌段的组成和比例,可制得从柔软的橡胶至坚硬的塑料之间的一系列产品,目前已生产了3个系列20多个牌号的产品。热塑性

聚酯弹性体具有橡胶的许多特性,但可用热塑工艺加工,它的结构强度高,使用温度范围宽,抗冲击、抗屈挠,弹性好,耐磨,耐油及多种非极性溶剂的浸蚀,可满足不同用途、不同档次的需要。产品已在汽车、电缆、电器、机械、制鞋、塑料改性等领域获得广泛的应用。

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