

Waste Nylon Fiber as Alternate Material for Glass Fiber in GRP Composites

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Abstract

Environment is influenced and polluted by non-biodegradable materials. In marine engineering applications glass fiber are mostly used because of low cost and easy availability. Glass fiber is a non-biodegradable and involves high risk during processing. Nylon fiber is tough, having high tensile strength & elasticity and lustre. They are highly resistant to abrasion and chemicals. In this study, waste nylon fibers are substituted for glass fibers in polyester matrix. Mechanical properties such as tensile, impact and flexural are studied according to ASTM standards. The reuse of waste nylon fiber as alternate source of glass fiber for manufacturing the composites minimise the problem of waste disposal.

Keywords: Nylon fiber, composites, mechanical properties

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