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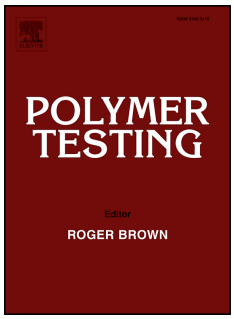

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The remarkably enhanced particle erosion resistance and toughness properties of glass fiber/epoxy composites via thermoplastic polyurethane nonwoven fabric

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ABSTRACT: In this work, a new method of preparing glass fiber/epoxy (GF/EP) composites with excellent solid particle erosion resistance and fracture toughness properties via thermoplastic polyurethane nonwoven fabric (TNF) was reported. TNF was prepared by virtue of the melt-blown (MB) process, and the composites were fabricated by vacuum-assisted resin transfer molding (VARTM) technique. Solid particle erosion characteristics of the composites were investigated in a confined space by impinging angular silica particles with a size about 300 μm. Compared with conventional GF/EP composites, the erosive wear resistance of TNF/glass fiber/epoxy

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