

عنوان مقاله:

(Mechanical Properties of Polyester Resin Formed by Resin Transfer Moulding (RTM

محل انتشار:

نهمین کنگره ملی مهندسی شیمی ایران (سال: ۱۳۸۳)

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خلاصه مقاله:

Mechanical behaviour of polyester matrix formed by resin transfer moulding (RTM) has been studied to determine several important parameters, such as tensile and compressive/strain responses, single edge-notch tensile (SENT) fracture toughness, fracture energy and flexural properties. Fracture toughness, KIC, and fracture energy, GIC, obtained for the polyester matrix lie between the typical values for epoxy resins and polystyrene. From experimental strain failure of the polymer matrix, theoretical mode-I delamination fracture energy of a composite was found to give a value of GIC of 600 J m^{-2} , which agrees well with experimental values of propagation GIC for bidirectional composites.

کلمات کلیدی:

Polyester Resin, Flexural Test, Resin Transfer Moulding, Onset of Damage

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