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Optimization of Compression Moulding Temperature for Polypropylene Materials

Optimierung der Formpresstemperatur für Polypropylen-Materialien

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Abstract

In this work, the effect of processing temperature of polypropylene (PP) on the viscosity and the melt flow index (MFI) is studied towards the best fabrication of PP/kenaf composites. PP with MFI grade 41 and as density value of 0.95 g/cm^3 is used as a raw material. The compression moulding machine is utilized to produce the moulded samples from PP pallets. The viscosity and the MFI tests have been selected as criteria to determine an optimum processing temperature. As optimum temperature 230°C has been found.

Kurzfassung

In der diesem Beitrag zugrunde liegenden Studie wurde die Wirkung der Prozesstemperatur für Polypropylen auf die Vis – kosität und den Schmelzindex untersucht, um die beste Herstellung von Polypropylen-Kenaf-Kompositmaterialien zu ermöglichen. Poly propylen mit einem Schmelzindex von 41 und einer Dichte von 095 g/cm^3 wurde dabei als Rohmaterial verwendet. Die Formpressmaschine wurde verwendet, um Formstücke aus dem Polypropylen-Granulat herzustellen. Die Viskosität und der Schmelzindex wurden als Kriterien gewählt, um die

optimale Prozesstemperatur zu bestimmen. Als optimal Temperatur stellte sich dabei 230°C heraus.

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