



Viscosity, Ultrasonic, Refractometric and Morphological Studies of Pullulan/Gelatin Blends

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ABSTRACT

Measurements of Viscosity, Ultrasonic velocity, Refractive Index and SEM Studies of Pullulan/Gelatin blends in water were carried out for different blend compositions at 30^oC and 40^oC. The properties like Thermal degradation, Biodegradability, Drug releasing capacity and Durability of polymers can be enhanced by blending a polymer with another polymer. The Miscibility and Compatibility are the two important parameters for the polymer blend studies. Using the viscosity data, interaction parameters μ and a were computed to determine miscibility. These values revealed that Pullulan/Gelatin blends were immiscible over the entire composition range studied at 30^oC and 40^oC. SEM analysis also supported the same. The results were further confirmed by ultrasonic velocity, Refractive index measurements, and Morphological Studies. Physico mechanical properties of Pullulan / Gelatin blend films show poorer qualities.

Keywords: Pullulan, Gelatin, Miscibility, Blends Compositions, SEM and other measurements.
