Physical properties of spray-dried pink guava (Psidium guajava) powder

Abstract

Spray drying of pink guava puree is important for preservation, volume reduction and prolongation of its shelf-life. This investigation was carried out to assess selected physical properties of its powder dried using lab plant spray dryer SD-05. The juice (brix 10.0 ± 0.1) of pink guava puree was mixed with MD at 10%, 15% and 20% and dried using temperatures 150, 160 and 170 °C at feed flow rate 350 ml/hr. Quality powder in terms of final moisture content, particle size, powder yield, bulk density, tapped density, flowability and color was found to be yielded at drying temperature of 150 °C with 15% maltodextrin.

Keyword: Pink guava puree; Spray drying; Maltodextrin DE 10; Physical properties