

Characterization of an Almond Shell Composite Based on PHBH

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Abstract : The utilization of almond crop by-products to obtain PHBH-based composites was carried out by using an extrusion process followed by an injection to obtain test samples. To improve the properties of the resulting composite, the incorporation of OLA 8 as a coupling agent and plasticizer was additionally considered. A characterization process was carried out by the measurement of mechanical properties, thermal properties, surface morphology, and water absorption ability. The use of the almond residue allows obtaining composites based on PHBH with a higher environmental interest and lower cost.

Keywords : almond shell, PHBH, composites, compatibilization

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