

Flax Fibre as Reinforcement in Recycled Tire Rubber and Thermoplastics Composite

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CSBE08191

The idea is to integrate the natural fibre and recycled polymer in the manufacture of some innovative biocomposite materials. Canada grown oilseed flax fibre can be utilized to the making of a partially biodegradable biocomposite. The biocomposite material was combined recycled tire rubber and flax fibre/shive with thermoplastic by Extrusion and Compression Molding process. The thermoplastic linear low density polyethylene (LLDPE) was utilized as the binder or matrix, ground tire rubber acted as filler or partially matrix. The principal reinforcement was ground flax fibre derived from oilseed flax straw. The ground flax shives acted as the filler in the biocomposite. The addition of ground tire rubber can increase the impact strength of the composites. This research has been involved optimizing and studying processing variables as well as composition percentages of the compounds being used.