





Effect of high-energy mechanical milling on the physicochemical and rheological properties of chayotextle (*Sechium edule* Sw.) starch

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Highlights

- Mechanical milling affects thermal properties at long milling times.
- Milling increases amylose content and promotes the formation of elastic gels (G').
- Modified starches show a non-Newtonian flow behavior as reofluidizers.
- $\tan \delta$ shows the modification of starch-generated elastic gels.

Abstract

This work evaluates the effect of high-energy mechanical milling time (7 levels, 20–80 min) on amylose content, crystallinity pattern, temperature and gelatinization enthalpy, morphology, and