

Short abstract proposal: Physical properties of biopolymer binder

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Recent development have commercialized nano-starch as a convenient means to substitute conventional latex in many applications such as coating binders , sheet lamination, corrugating. However the mechanical properties of this material remain uncharacterized specifically for the purpose of limiting fold or score cracking or adding tensile/compression strength or bending stiffness. The proposal here is to prepare suitable films of biopolymer nano-starch and other candidates of interest to measure the mechanical properties and compare the results to conventional starch films. If the elastic constants and particularly ductility of nano-starch proves to be superior to conventional cationic starch, then there is a clear reason to advance the introduction of this material into the marketplace.