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E-BABE-Recycling leather wastes in carton industry

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Wastes extracted from tanning leather industry were grinded into nanoparticles size and treated with flame retardant materials. The treated leather wastes were then added with different concentrations during carton sheet hand-making. The influence of these leather wastes on flame retardancy and thermal stability of the produced paper sheets were investigated by flame test and Thermal Gravimetric Analysis (TGA). Furthermore, physical properties; permeability, opacity and brightness and mechanical; tear strength, burst, tensile strength, were evaluated. The surface morphology of the paper sheets was studied using a Scanning Electron Microscope (SEM). We succeeded in producing carton sheets with improved flame retardant based on addition of treated and untreated leather wastes as additives during sheet formation. Furthermore the physical and mechanical properties were unchanged.

Biography

Ola A Mohamed completed her PhD at age 30 years. She is a Professor in chemistry of Tanning Materials and Leather Technology Department, Chemical, Industries Division, National Research Centre, Egypt.

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