

IRAP099

Effect of ionizing radiation in pebd monolayer films

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In this work was studied the action of the ionizing radiation in PEBD films monolayer, used in packings for the preservation of chicken "*in nature*". The mechanical properties had been evaluated (tensile strenght and perforation), as well as the variation of the viscosimetric molar mass of the samples. Also was evaluated the viscosity kinematics of the film dissolved after in the different radiation doses. The tests had been realized with radiation doses between 0 and 30 kGy, at room temperature and in presence of air, using electron beam. An increase in the mechanical properties was observed (tensile strenght and to the perforation) until the dose of 15kGy. For superior doses they had a decrease. The same effect was observed to viscosimetric molar mass and to dynamic viscosity of the dissolved films. The swelling of the films were had and didn't show gel fraction.

Keywords: PEBD films, ionizing radiation, mechanical properties, viscosimetric molar mass