

ETUDE DE LA PLASTIFICATION DU PVC PAR DES HUILES NATURELLES ALIMENTAIRES

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Abstract : health starts several research to replace them by bio plasticizers, for that we studied the possibility of using the di ester isosorbide (DEI) and sunflower oil epoxydized as bio plasticizers. We manufactured PVC films containing various rates of DEHP, DEI and HTE. Then we carried out the analyses for the study of the mechanical (traction and hardness), thermals (coloring, TGA and DMA) and physic-chemical properties (volatility, extraction and leaching) according to change of the rate and the type of plasticizer. The results obtained show that the HTE has better thermal properties but very bad mechanical properties and physic-chemical, the DEI having almost the same properties or better than the DEHP.

Keywords : PVC, DEHP, DEI, HTE, bio plasticizers, Volatility, extraction, leaching.