

Abstract

Title of the thesis: Studies on the thermal degradation behavior of poly (vinyl chloride) blends.

This work has been carried out to investigate the efficiency of poly (N-acryloyl-N'-cyanoacetohydrazide) and poly (glycidyl methacrylate) as thermal stabilizers for rigid PVC, at 180 °C, in air. The results reveal that the investigated materials are relatively better as compared with the dibasic lead carbonate reference stabilizer used in industry. This is illustrated by their greater thermal stability values, lower dehydrochlorination rates and lower extent of discoloration. Mixing these materials with reference stabilizer in different proportions improves the thermal stability values and the degradation rates as well as the extent of discoloration.