

## **Effect of Chemical Solution on Some of the Mechanical Properties of the Polymer Composites Reinforced**

This work has been done with using of polypropylene (pp) as a matrix, which reinforced with fibers glass (glass fiber short , glass fiber woving roving , and glass fiber short +, glass fiber woving roving ). The research also studies the Mechanical properties (CreepImpact ) of the Samples with the same volume fraction (30%) and comparing the results. These tests are carried out on samples under the influence of normal conditions room temperature (23+3oC) and after immersion of all samples in the chemical solutions (KOH-HCL- NaCO<sub>3</sub>). The normality for all these chemical solutions is 0.5. The results showed when time immersion increase these properties are decreased, which indicates the negative effects of these chemical solutions on the mechanical properties. Tests showed that the results of the values of each of the creep resistance and impact increases after immersion in chemical solutions, and that the solution KOH is more influential. Results show that samples of blend reinforced [PP + f.g (w.r+r)] possess better creep resistance, and sample of [PP+f.g (w-r)] possess better impact resistance at all conditions tests (room temperature and after immersion in chemical solutions)