

Influence of Solvent on the polyethylene maleate process

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In this study, we have investigated the influence of the nature of solvent on the grafting reaction in a homogeneous system. To compare the effect of solvent, the graft polymerization of maleic anhydride on polyethylene was carried out by using solvents such as xylene and toluene. We also prepared several samples by volume of solvents. The results show that the percentage of grafting in xylene as solvent was higher than toluene. This is because xylene as good solvent has excellent solubility swelling property and miscibility. Also, we can be seen that solvent prevent cross linking due to chain transfer reactions to solvent molecules. These results also mean that the more high grafting degree can be obtained through grafting process using liquid solvent.