

Study of initial oil absorption on polyurethane foam using PTMG mixture

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Polypropylene glycol(PPG) was mainly used in research of polyurethane foam(PUFs) as oil absorbent. PUFs using PPG has highly oil absorption, but the initial absorption property displayed low tendency. This means that it is difficulty in rapid recovering outflowed oil in the water. Based on this consideration, we have been developing an oil-recovering system using rapidly oil-absorptive PUFs. For improvement of initial oil absorption, PUFs were prepared by PTMG in the presence of PPG because that PTMG was mostly used in oil gelling agent and velocity of oil absorption was fast. In the present study, we investigated the change of initial oil absorption, cell structure and mechanical properties in the PPG/PTMG mixture in the PUFs. Oil absorption was determined by ASTM(F726-81), and the cell structure was observed by a microscope.