CNT filled flexible polyurethane foams

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Polyurethane(PU) foams are widely used for sound absorption and seat cushioning materials in automobiles. The physical properties (comfort and acoustic properties) of PU foams can be enhanced by adding filler to the base formulations. In this study, physical properties of PU foams are investigated by varying CNT filler contents. CNT fillers modified the morphology of PU foams and thereby led to the improved physical properties. However, the polyol system became too viscous to form homogenously distributed mixture when the excessive amount of CNT fillers were incorporated. Therefore, it is important to find the proper CNT filler contents to manufacture PU foams with optimum physical properties.