

## Effect of polymerization variables on the properties of flexible polyurethane foam

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The effect of cell opener, catalyst, and water on the morphology of the flexible polyurethane foam has been studied by analyzing the cell size and morphology on the scanning electron microscopy. The foam density and cell size are significantly increased as increasing the cell opener, catalyst, and water. However, the density and cell size are difficult to control by roughly changing the reagents. To address these issues, we prepared a experimental design following the Box-Behnken experimental design of three factors for examining the effect of reagents on the cell properties of the flexible polyurethane foam.