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## Effect of polymeric quenching on eutectic modified Al-Si alloy

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The authors studied the effect of polymeric quenching on eutectic modified Al-Si alloy. Polymer quenchants are very commonly used for heat treatment purposes, since they easily replace quench oils and water. The physical properties of polymer quench bath directly effect the cooling rate of quenched path. In their study a master alloy of modified eutectic was prepared and used. The specimens were quenched and heat treated in distilled water, food oil, machine oil and 1% of polyvinylalcohol. The specimens were tested for X-ray difraction ,microstructure, hardness and wear rate. They observed that the use of 0.6% PVA revealed maximum hardness with a slite decrease in wear rate. The object of their work was to heat treat the alloy and quench it in water. Two types of oils and different concentrations of PVA were used. They finally compared the results, to find the best quenching media. they also examined microstructure of the specimens.