عنوان مقاله:

Increasing strength values of polyurethanes in shoe industry, by changing the Isocyanate and Polyol combination

محل انتشار:

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خلاصه مقاله:

Adhesives for shoe industry must have high resistance to impact and also good workability is a necessity. Polyurethane adhesives are often preferred because they provide flexible yet strong and durable bonds to the wide variety of substrates used in the shoe industry. in this study urethane Elastomers supplied in A_B mix, Polyol and Isocyanate, in each test we changed the mixed ratio Polyol and Isocyanate by weight. with keeping fix the value of Isocyanate's viscosities, whereas, had changes in amount of Polyol viscosity. our main goal was making PU with superior quality with cured properties. in different range of shore A, other specifications such as linear shrinkage, tensile strength, elongation at break, tear strength and compressive modulus measured. Finally, made glue used to stick shoes. afterward by means of DEVOTRANS machinery other particulars measured. Observation shown that modulus values are increase steadily with decreasing the viscosity of formulated Polyol although the weight of Isocyanate increased. the tensile properties, as the rises from 230C to 2100C, follow a consistent pattern and decrease uniformly. it's specially observed that these PUs show no sharp melting points accompanied by rapid loss in dimensional stability.The result is to find high-quality polyurethane products for the assembly and bonding of various .shoe components

کلمات کلیدی:

Polyurethane, Isocyanate, Polyol, strength, adhesive, shoe industry