

## THE THICKNESS OF INTERPENETRATION LAYER FUNCTION OF ROUGHNESS AT CONTACT SURFACE OF BI-COMPONENTS PARTS

Ilie Sorin<sup>1</sup>, Ștefan Mihăilă<sup>1</sup> & Flavius Ardelean<sup>2</sup>

<sup>1</sup>S.C. PLASTOR S.A-Romania, Department Nr.3 of Injection molding

<sup>2</sup>Technical University of Oradea, Department of Machine Manufacturing Technology

Corresponding author: Ilie Sorin, sorin\_ilie@plastor.ro

**Abstract:** The purpose of this paper-work is to present the practical experiments to determinate the influence of the roughness at the contact surface between two thermoplastics polyurethanes. Thirst polyurethanes it is a soft plastic material and the second is very rigid or hard polyurethane. The adhesion between these two materials it is very important for the bi-components injection molding parts. These parts obtained with bi-components molding injection technologies are very complex because they combine multi characteristic of the different plastics material like thermoplastics polyurethanes.

**Key words:** injection, molding, bi-component, adhesion, interpenetration, polyurethane.