The aim of this graduation theses was to study the adhesiveness of branched oligoesters under various testing conditions using Material testing machine Zwick/Roell T1-FR050TH.A1K and rheological properties using Brookfield digital viscosimeter DV-E. The maximum force (F_{max}) required to detaching the polymer systems from substrate was measured for determination of adhesiveness of oligoesters.

It was found that F_{max} of branched oligoesters was significantly higher in comparison with Carbomera or Methylcellulose hydrogels. The increase of the maximal adhesive force is due to the growing consolidation force, the contact time and sample detachment velocity. There was a decrease of the viscosity of the adhesive polymers caused by increasing concentration of the branching component. The incorporation of the drug had a different effect on the viscosity of the various samples. The swelling of the adhesive polymers led to the decrease of the viscosity.