

## Abstract

Charles University in Prague, Faculty of Pharmacy in Hradec Králové

Department                      Pharmaceutical Technology

Candidate                         Mgr. Kateřina Holubová

Consultant                        PharmDr. Jitka Mužíková, PhD.

Title of the Thesis                The study of dual matrix tablets

The thesis studies the compressibility of directly compressible tableting materials containing two viscosity types of hypromellose in two concentrations and tableting materials containing additional glyceryl dibehenate, also in two concentrations. Compressibility is evaluated by means of the energy profile of the compression process and determination of tensile strength of tablets. Dissolution test examines the rate of release of the active ingredient from matrix tablets.

Increased concentrations of both hypromelloses and an addition of glyceryl dibehenate into tablets with both types of hypromellose improved compressibility. The rate of drug release was decreased with increasing viscosity degree of hypromellose and its increasing concentration. An addition of glyceryl dibehenate exerted the same influence on release as increased concentrations of the pertinent hypromellose.