

Myslivečková Jana – Rigorózní práce – 2006

This work deals with deformation index of tablets of microcrystalline cellulose. Theoretical part describes the theory of tablet formation by means of the record force – displacement. It also characterizes microcrystalline celluloses. The aim of the work was to find out the influence of a filler on the parameter E_2 of the compression process and on the parameter DE of the destruction process. Further to asses the influence of the relation between parameters DE, D and E_2,DE and effect of the filler type on new parameter DI. Six various fillers were tested. Ceolus KG 802 Avicel PH 102, Avicel PH 200, Pearlitol 100 SD, Tablettose 70, and Emcompress.

The results show that polymeric microcrystalline celluloses accumulate less energy at compression than crystalline compounds. However, they have higher value of D. Microcrystalline celluloses have the highest values of the parameter DI. A semilogarithmic dependence was found between the parameters D and DE.