SUMMARY

In the work is studied mechanical strength and disintegration time of tablets prepared by direct compression of the two form silicified microcrystalline celluloses – Prosolv SMCC 50 and Prosolv SMCC 90 according to the compression force (3; 3,5; 4kN), addition of lubricants (magnesium stearate, Pruv) and addition of model active substances (acetylsalicylic acid, ascorbic acid). Studied co-processed filler-binders differ by the size of elements. Used concentration of lubricants was 0,5 %, of model active substances 50 %.

Tablet strenght and the disintegration time rise with the increasing compression force. The work confirms the low impact of the lubricants on the tablet strenght from microcrystalline celluloses (especially Prosolv SMCC 50). Prosolv SMCC 50 gives firmer tablets with longer disintegration time. The disintegration time of all of the tableting blends is increased by adding of lubricants as well, higher negative impact has magnesium stearate. The presence of model active substances decreases the strength of the tablets and accelerates the disintegration time of all of the tested compounds, in the mixtures with active substances was not applied negative impact of lubricats on the disintegration time (except of Prosolv SMCC 50 in mixture with ascorbic acid – the disintegration time was not lengthened).