

Abstract

The paper deals with the study of the properties of tablets from the mixtures of the dry binders composed from 75% α - lactose monohydrate (Tabletose[®]100) and 25 % microcrystalline cellulose or microcrystalline cellulose with 2% of colloidal silicon dioxide (Prosolv SMCC[®]). The properties under study included the tensile strength and disintegration time in dependence on compression force, addition of two concentration of the lubricant magnesium stearate and a 50% addition of the active ingredient ascorbic acid. The compression forces were 23, 25, 27 kN, in the case of the tableting material with the active ingredient only 25 kN. The compacts from the mixture of Tabletose 100 and Prosolv SMCC 90 were of higher strength and the effect of lubricants wasn't so expressive like at mixtures with microcrystalline cellulose only. Disintegratiion time was prolonged with the increasing of the concentration of magnesium stearate, more in the case of microcrystalline cellulose in the mixture only. In the presence of ascorbic acid, the strength of tablets was decreased, the difference in the values of strength of tablets with silicified microcrystalline cellulose and microcrystalline cellulose wasn't. Ascorbic acid shorted the disintegration time too and more in the case of the mixture with Prosolv SMCC 90.