

Summary

Mechanical resistance of tablets is usually described by crushing force, or by tensile strength. Method used in this thesis records crushing force and path of crushing. This force-path record can be used to calculate crushing energy. Crushing force, crushing path and crushing energy can be used to calculate other parameters that characterize tablet properties. This thesis uses crushing force, volume crushing force, tensile strength, crushing energy, volume crushing energy and crushing energy related to tablet weight to describe tablets compressed of powdered cellulose, microcrystalline cellulose, hydroxypropylcellulose and lactose monohydrate.

Results of this thesis shows descent of tensile strength in this order: microcrystalline cellulose Avicel PH-112, microcrystalline cellulose Avicel PH-101, hydroxypropylcellulose, powdered cellulose and lactose monohydrate. Kinetic characteristics of tablets descent in this order: hydroxypropylcellulose, microcrystalline cellulose Avicel PH-101, microcrystalline cellulose Avicel PH-112, powdered cellulose and lactose monohydrate.