

ABSTRACT

The study evaluates the micronized poloxamers Lutrol[®] micro 127 (poloxamer 407) and Lutrol[®] micro 68 (poloxamer 188) as lubricants in combination with the dry binders microcrystalline cellulose and spray-dried lactose. Magnesium stearate was employed as the comparative lubricant. The parameters under study included energy for friction, plasticity, ejection force, and tensile strength of tablets. The factors of influence were the concentration of lubricants, compression force, and mixing parameters. The lubricating effect of micronized poloxamers was smaller than that of magnesium stearate. Higher concentrations of poloxamers decreased the tensile strength of tablets from microcrystalline cellulose. Parameters of mixing of dry binders with poloxamers influenced the tested parameters of compression more than those with magnesium stearate, in particular in the case of spray-dried lactose. In microcrystalline cellulose, they influenced more the tensile strength of tablets.