Abstract

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Title of Thesis:	Study of	flow	and	consolidation	behaviour	of
	pharmaceutical free-flowable excipients					

Flowability is an important characteristic of pharmaceutical powders that affects processing of the powder. Flow and granulometric properties of mannitol (Pearlitol[®] 200 SD, Pearlitol[®] 400 DC) and xylitol (Xylisorb[®] XTAB 240, Xylisorb[®] XTAB 400) were evaluated in this thesis. The angle of repose was measured by an automatic tester Erweka and a prototype complying with ASTM standards for the determination of angle of repose. Hopper orifices having a diameter 6 mm, 8 mm, 10 mm, 12 mm, and 15 mm were used to study the influence of the orifice diameter on the value of angle of repose. Determination of angle of repose was completed with the measurement of density of a formed pile. The values of angle of repose measured by the Erweka tester were higher in all samples than those obtained from the prototype. For both apparatuses, the angle of repose decreased with increasing in the orifice diameter.