

KARAKTERISASI *ORALLY DISINTEGRATING*b *TABLET* PIROKSIKAM DENGAN KONSENTRASI CMC-Ca 2.5 % DAN 7.5% MENGGUNAKAN PENGIKAT GELATIN 2% DAN BASIS MANITOL (Dibuat Dengan Metode *Freeze Drying*)

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ABSTRACT

Piroxicam orally disintegrating tablet was prepared by freeze drying method containing piroxicam, mannitol as filler, gelatin as binder, and CMC-Ca as superdisintegrant. Piroxicam orally disintegrating tablet and physical mixture were characterized using differential thermal analysis (DTA), powder X-ray diffractometry (PXRD), and Scanning Electron Microscope. Effect of varying concentrations of CMC-Ca was also studied. DTA studies showed that there was a decrease of piroxicam melting point and enthalpy. The lowest melting point and enthalpy of piroxicam was showed by formulation containing CMC-Ca 7.5%. PXRD study demonstrated that there was no significant decrease in degree of crystallinity of piroxicam in orally disintegrating tablet and physical mixture. This results showed that piroxicam transformed partially to the amorphous state. Surface morphology of piroxicam orally disintegrating tablet showed that tablet made by freeze drying was porous, eventhough there was no clearly difference in porosity among all the formulations.

Keywords : orally disintegrating tablet; piroxicam; CMC-Ca; gelatin; manitol; freeze drying; characterization