

## ABSTRAK

**MEYLINDA PUSPITA, 2026, FORMULASI FAST DISINTEGRATING TABLET METOKLOPRAMID MENGGUNAKAN KOMBINASI CROSCARMELOSE SODIUM DAN CROSPVIDONE SEBAGAI SUPERDISINTEGRANT, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI.**

Metoklopramid merupakan obat prokinetik dan antiemetik yang umum digunakan, namun bentuk sediaan konvensional seperti tablet memiliki keterbatasan dalam hal kelarutan dan kenyamanan penggunaan terutama bagi pasien disfagia. *Fast Disintegrating Tablet* (FDT) merupakan inovasi sediaan padat oral yang cepat hancur di dalam mulut, meningkatkan bioavailabilitas dan kepatuhan pasien. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi *crospovidone* dan *croscarmellose* terhadap mutu fisik dan profil disolusi FDT metoklopramid untuk menentukan perbandingan kombinasi yang optimal.

Tablet diformulasikan dengan metode kempa langsung dalam lima variasi perbandingan kedua superdisintegrant. Evaluasi dilakukan terhadap sifat fisik granul (waktu alir dan sudut diam) serta mutu fisik tablet meliputi kekerasan, kerapuhan, waktu hancur, waktu pembasahan, keseragaman kandungan, dan uji disolusi. Analisis kadar metoklopramid dilakukan menggunakan metode Kromatografi Cair Kinerja Tinggi (HPLC) yang telah diverifikasi melalui parameter linieritas, akurasi, presisi, dan spesifisitas. Data dianalisis secara statistik menggunakan uji One-Way ANOVA.

Hasil penelitian menunjukkan bahwa kombinasi *croscarmellose* sodium dan *crospovidone* tidak berpengaruh signifikan terhadap sifat fisik granul, namun berpengaruh terhadap mutu fisik tablet, terutama waktu hancur, waktu pembasahan, dan profil disolusi. Formula dengan perbandingan (5:5) menghasilkan karakteristik tablet terbaik dan memenuhi persyaratan mutu FDT.

---

**Kata kunci:** Metoklopramid, superdisintegrant, FDT, mutu fisik, kempa langsung

## **ABSTRACT**

**MEYLINDA PUSPITA, 2026, FAST DISINTEGRATING FORMULATION OF METHOCLOPRAMIDE TABLETS A COMBINATION OF CROSCARMELLOSE SODIUM AND CROSPVIDONE AS SUPERDISINTEGRANT, S1 PHARMACY STUDY PROGRAM, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY.**

Metoclopramid is a commonly used prokinetic and antiemetic drug, but conventional dosage forms such as tablets have limitations in terms of solubility and convenience of use, especially for patients with dysphagia. Fast Disintegrating Tablet (FDT) is an innovative oral solid preparation that quickly breaks down in the mouth, increasing bioavailability and patient compliance. This study aims to find out the effect of the combination of crospovidone and croscarmellose on the physical quality and dissolution profile of FDT metoclopramide to determine the optimal combination ratio.

The tablet is formulated with a direct felt method in five variations of the comparison of the two superdisintegrants. The evaluation was carried out on the physical properties of the granules (flow time and angle of silence) as well as the physical quality of the tablet including hardness, fragility, breaking time, wetting time, uniformity of content, and dissolution test. The analysis of metoclopramide levels was carried out using the High Performance Liquid Chromatography (HPLC) method which has been verified through linearity, accuracy, precision, and specificity parameters. Data was statistically analyzed using the One-Way ANOVA test.

The results of the study showed that the combination of croscarmellose sodium and crospovidone did not have a significant effect on the physical properties of the granule, but had an effect on the physical quality of the tablet, especially the time of crushing, wetting time, and dissolution profile. Formula with a ratio (5:5) produces the best tablet characteristics and meets FDT quality requirements.

---

**Keywords:** metoclopramide, superdisintegrant, FDT, physical quality, direct compression