

**PENGARUH PENGGUNAAN CARBOPOL[®] 940 30% PADA
PEMBUATAN TABLET VAGINAL METRONIDAZOL MUKOADHESIF
SECARA CETAK LANGSUNG**

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ABSTRAK

Metronidazol diformulasi menjadi tablet vaginal mukoadhesif dengan metode cetak langsung menggunakan polimer Carbopol[®] 940 30% dan tanpa Carbopol 940[®]. Bobot tiap tablet sebesar 200 mg. Hasil pemeriksaan karakteristik granul pada tablet vaginal metronidazol mukoadhesif menggunakan Carbopol[®] 940 30% dan tanpa Carbopol[®] 940 berturut-turut adalah % kompresibilitas : 22,73%, 23,83%; % *moisture content* : 4,67%, 0,00%; % *fines* : 25,48%, 20,00%; kecepatan alir : 2,04 g/detik, 4,30 g/detik; sudut diam : 29,30°, 31,16°; homogenitas granul : 110,77%, 82,33%. Sedangkan hasil pemeriksaan karakteristik tablet dengan penambahan Carbopol[®] 940 30% dan tanpa penambahan Carbopol[®] 940 berturut-turut adalah keseragaman bobot tablet : 210 mg, 257,8 mg; keseragaman ukuran tablet (diameter dan tebal) : 9,07 mm dan 3,28, 9,09 dan 3,15; kekerasan tablet : 4,24 g, 3,20 g; *rolling & impact durability tester* : 0,42%, 13,34%; *abrasion tester* : 0,26%, 4,66%; penetapan kadar metronidazol tablet : 105,6340%, 104,3834%. Tablet dengan penambahan Carbopol[®] 940 30% menunjukkan adanya indeks pengembangan yang semakin meningkat dengan bertambahnya waktu. Setelah dilakukan uji pengembangan, hasil pengujian menunjukkan bahwa tablet dengan penambahan Carbopol[®] 940 30% menghasilkan daya mukoadhesi sebesar 30g, sedangkan tablet tanpa penambahan Carbopol[®] 940 sebesar 2,5g. Hasil penelitian disolusi pada menit ke 60 dari tablet dengan penambahan Carbopol[®] 940 30%, %Q adalah 105% sedangkan tablet tanpa penambahan Carbopol[®] 940 pada menit ke 30, %Q adalah 103%.

Kata kunci : Tablet vagina, metronidazol, Carbopol[®] 940 30%, cetak langsung, mukoadhesi.

THE INFLUENCE USING OF CARBOPOL[®] 940 30% IN PRODUCTION
MUKOADHESIF METRONIDAZOL VAGINAL TABLET BY
DIRECT COMPRESS

Suci, 2009

ABSTRACT

Metronidazol is formulated into mukoadhesif vaginal tablet with direct compress method using polimer Carbopol[®] 940 30% and without Carbopol 940[®]. Tablets were prepared weighing 200 mg. The granul characteristics check on mukoadhesif metronidazol vaginal tablet using Carbopol[®] 940 30% and without Carbopol[®] 940 succesively are % compresibility: 22,73%, 23,83%; % moisture content : 4,67%, 0,00%; % fines: 25,48%, 20,00%; flow speed: 2,04 g/second, 4,30 g/second; still angle: 29,30°, 31,16°; granul homogeneity: 110,77%, 82,33%. Meanwhile tablet characteristic check result, with the addition of Carbopol[®] 940 30% and without the addition of Carbopol[®] 940 succesively is the uniformity of the weight of the tablet: 210 mg, 257,8 mg; the uniformity of the size of the tablet (diameter and thickness): 9,07 mm and 3,28, 9,09 dan 3,15; tablet hardness: 4,24 g, 3,20 g; rolling & impact durability tester : 0,42%, 13,34%; abrasion tester : 0,26%, 4,66%; the establishment of the tablet metronidazol: 105,6340%, 104,3834%. Tablet with addition of Carbopol[®] 940 30% showing that there is development index that is increasing as time pass. After development test, the test result shows that tablet with the addition of Carbopol[®] 940 30% resulting in mukoadhesion force as much as 30g, erstwhile the tablet without the addition of Carbopol[®] 940 as much as 2,5g. Disolution research result on minutes 60 from tablet with the addition of Carbopol[®] 940 30%, %Q is 105% erstwhile the tablet without the addition of Carbopol[®] 940 on minutes 30, %Q is 103%.

Key word : Vagina tablet, metronidazol, Carbopol[®] 940 30%, direct compress, mukoadhesi.