



Physical and Release Properties of Acetaminophen Hard Gelatin Capsules Coated by Spouted Bed

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SUMMARY. In this work, the enteric coating of acetaminophen loaded hard gelatin capsules (HGC) was carried out by spouted bed process. The coated product was characterized through determination of the shape factor, coating mass distribution, coating morphology (scanning electronic microscopy), and by dissolution profiles (dissolution test). The shape factor and product sphericity changes during coating operation evidencing a non-homogeneous coating mass distribution onto capsules surface. The results indicate that the lateral coating layer of HGC increases faster than the extremities. Micrographs obtained by scanning electronic microscopy show a homogeneous coating layer with low presence of defects. Better quality of the coated surface is obtained for longer coating times. The results showed that the gastric resistant effect is obtained with coating layer masses between 4 and 17.0 mg/cm².

KEY WORDS: Acetaminophen, Enteric coating, Hard gelatin capsules, Particle coating, Spouted bed.

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