

## Abstract

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Title of Thesis: Homogenization of powder blends using a Turbula mixer.

In this experimental work, the influencing of the homogeneity of the powder mixture of acetylsalicylic acid (ASA) and microcrystalline cellulose (Avicel PH102) due to the rotational speed of the mixing container in a range of 23–101 rpm, and the mixing time was studied using the Turbula shaker mixer. Within time interval 2–62 minutes, the content of ASA in samples was measured by near-infrared spectrometry. The expression of standard deviation was used to evaluate the homogeneity of samples. The best results were detected at a rotational speed of 34 rpm within time interval of 14–30 min.