

Improving of compression by coating granules with the cellulosic derivative.

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Abstract

In the pharmaceutical industry working with some pharmaceutical compounds, especially plant fluid extracts, the dosage forms like tablets can lead to a sticking effect on punches during the compression, as a crust forms on the upper and lower punches. Resulting tablets are damaged as well as the punches. But a simple granule coating can get rid of this sticking phenomenon and allow a good compression.

In our study, the granules have been impregnated with a high amount of plant fluid extract to compensate the low content of active substances. While compressing, granules stick on punches, damaging them and the tablets too. To overcome this issue, we coat the manufactured granules. For that, hydrophobic coating agent is preferably used, such as cellulose acetate phthalate. With a low percentage (w/w) of this cellulosic derivative, the granules don't stick on punches. Moreover, the final tablets are perfectly smooth, harder and less friable.

We can expect that this method will be standardized in the Phytotherapy industry. That because one has often to face variations of their natural extracts, which directly modify the physical characteristics of the granules and the tablets. Coating the granules will make the compression process more robust and it will consequently overcome those variations.