
Segregation Potential

Material Flow Solutions, Inc.



In its simplest form, segregation is defined as the separation of various components in a mixture. The **Segregation Potential** of a bulk material is a measured value of the specific material's tendency to separate under a set of specific conditions. Predicting a material's potential for segregation is directly correlated to measuring the flow properties of the mixture as a whole, as well as the key flow properties of individual mixture components. The most prevalent segregation mechanisms are: angle of repose, sifting, air entrainment, and fluidization.

Segregation is caused by different mechanisms. Separation of particles can occur as fines sift down through a matrix of coarse particles. Differences in repose angle can separate particles as they slide down a pile. Air currents can carry fine particles to different parts of the equipment during filling. It is critical to understand the cause of segregation, the magnitude of the effect, and the segregation pattern that results to be able to mitigate the problem.

At Material Flow Solutions, Inc. we measure the key flow properties of your material and, using your specific process parameters, calculate that material's potential to segregate during processing. We then recommend product and/or process design modifications to get you back on track with your desired output – No More Costly Down Time.

PRACTICAL APPLICATIONS of **Segregation** testing data include, but are not limited to:

- ✿ Maintaining product quality in processes
- ✿ Predicting blending effectiveness
- ✿ Optimizing handling systems
- ✿ Creating quality product design
- ✿ Enhanced process control