

Simulation and Experimental of Solid Mixing of Free Flowing Material Using Solid Works in V-Blender

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Abstract : The objective of this study is to present a novel approach for analyzing the solid dispersion and mixing performance by a numerical simulation method using solid works software of a monodisperse particles for a large span of time reached 20 minutes. To assure the viability of a numerical simulation, an experimental study of a binary mixture of monodisperse particles taken as free flowing material in a V blender was developed on the basis of relative standard deviation curves, and the arrangement of the particles in the vessel. The experimental results were discussed and compared to the numerical simulation results.

Keywords : non-cohesive material, solid mixing, solid works, v-blender

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