



Resonant Acoustic® Mixing Powder Incorporation

Background

Resodyn Acoustic Mixers has developed a novel mixer product line that uses low-frequency, high-intensity sound energy for mixing. The mixer technology, trademarked as ResonantAcoustic® Mixing, is applicable to a broad range of mixing classes that include liquid-gas, liquid-liquid, liquid-solid and powder-powder systems. Highlighted in this bulletin is: **Blending Corn Syrup with Chalk Powder**. This demonstrates the common application of dispersing fine particles in low viscosity liquid.

Polymer-Powder Blending

Colored chalk powder was blended with corn syrup. The image on the left depicts the starting materials while the image on the right shows the results after mixing. The starting materials were 300g of corn syrup and 3.0g of chalk. The mixing was performed at 20°C with the corn syrup exhibiting a viscosity of 2100cp.

The materials were blended using the LabRAM® mixer. After only eight seconds of mixing the two materials were thoroughly blended with the chalk fully dispersed within the corn syrup.

The use of RAM™ technology is well suited for dispersion of solids into polymers. Mixing in the end container allows for quick batch cycle and no clean up of the mixing equipment.



Starting Materials



After 8 Seconds Mixing

ResonantAcoustic® Mixer Benefits

- Easy cleaning
- Fast mixing times
- Can mix in the shipping container
- Breaks loose agglomerations
- Safe for hazardous materials
- Can combine processing steps such as coating and mixing



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