Resodyn ACOUSTIC MIXERS

Innovative Mixing Solutions

Resonant Acoustic® Mixing

Hydrating Hydrocolloids

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 for a broad range of mixing regimes that include liquid-gas, liquid-liquid, liquid-solid and powder-powder systems. Highlighted in this bulletin is: **Hydrating Sodium Carboxymethyl Cellulose**. This bulletin demonstrates the use of Resonant Acoustics® for hydration.

Hydrating Hydrocolloids

A formulation of Sodium Carboxymethyl Cellulose (NaCMC) and water was mixed. Current methods employ stir bars that may take many hours to fully hydrate the NaCMC.

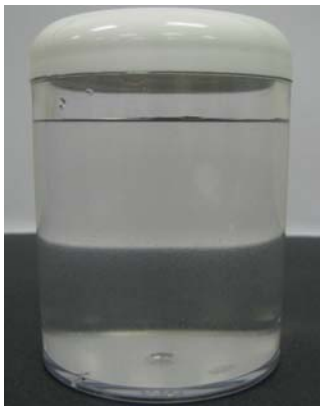
The image on the left depicts the starting materials, while the image on the right shows the hydrated NaCMC in the mixing container after mixing using Resonant Acoustics®.

The starting materials were 200 grams of water and 2 grams of NaCMC. The materials were mixed for 10 minutes. At the end of the mixing, the NaCMC was fully hydrated. There were no clumps of NaCMC remaining. Final viscosity matched requirement of 1000 -3000cps.

The use of RAM® technology is well suited for hydrating materials. This may be applied to pharmaceutical and chemistry formulations.

Resonant Acoustic® mixing also alleviates contamination or clean up concerns as the mixing is performed in a sealed container with no mixing blades in the mix container.

Starting Materials



After Mixing

RAM5 Mixer for production and process development.

ResonantAcoustic® Mixer Benefits

- Remote operation
- Blends dissimilar powders
- Fast mixing times
- Can mix in the shipping container
- Solids, liquids, & gels
- Can mix hazardous materials
- Hydrations
- Viscous and Aqueous solutions

LabRAM Mixer for lab use and small volume production batches.

Made in USA

Contact

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