Powder Incorporation in Viscous Liquid

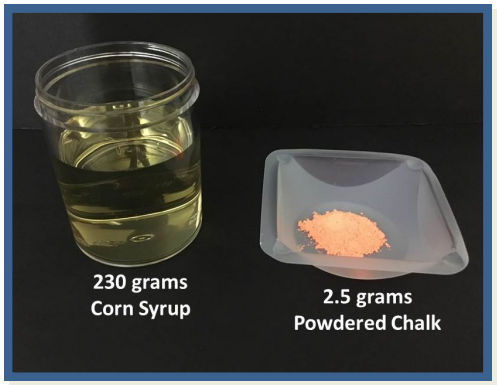
How You Think About Mixing and Processing

Resodyn Acoustic Mixers' second generation technology, ***Lab*RAM II,** provides up to I kg payload capacity and advanced control features. Virtually any combination of liquids, powders, pastes, and gases can be processed faster, better, more efficiently, and more productively using the ***Lab*RAM II** bench-top mixing systems and accessories. (www.resodynmixers.com)

Polymer-Powder Blending with RAM

Many polymer based materials require the addition of dry materials such as powders for performance or coloration.
To illustrate dry powder incorporation in a viscous liquid, colored chalk powder was blended with corn syrup.
The image on the top right shows the starting materials and the image on the bottom right shows the materials after processing.
The starting materials were 230 grams of corn syrup and 2.5 grams of powdered chalk. The mixing was performed at 20° C with the corn syrup exhibiting a viscosity of 2,100 cP. The materials were blended using the ***Lab*RAM II®** mixer.
After only 8 seconds of mixing and 9 minutes of processing under vacuum to degas the mixed material, the two ingredients were thoroughly blended and degassed with the chalk fully dispersed within the corn syrup.
The use of **RAM™** technology is well suited for dispersion of solids into polymers.

For this and other videos, please visit:
www.resodynmixers.com/applications



ResonantAcoustic® Mixer Value Proposition

- Mix 10-100 times faster than traditional mixers
- Improve product quality to new levels
- Reduce or eliminate clean-up costs
- Eliminate cross-contamination
- Scale easily from development to production
- Scale up without increased processing time

Resodyn ACOUSTIC MIXERS

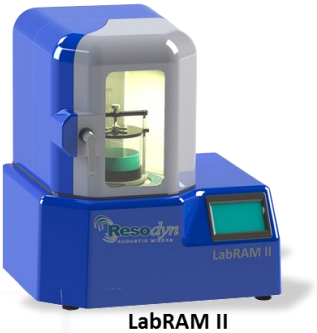
130 North Main Street, Suite 630
Butte, MT USA 59701
(406) 497-5333
info@ResodynMixers.com
www.ResodynMixers.com

Resodyn ACOUSTIC MIXERS

Innovative Mixing Solutions

RAM Product Family

How You Think About Mixing and Processing



LabRAM II

LabRAM II H

RAM 5

*Omni*RAM

RAM 5 H

RAM 55

ResonantAcoustic® Mixing performance is available across the **RAM** product line, enabling results and new product development not possible with traditional mixing methods. All **RAM** products use *low*-frequency acoustic mixing at up to 100 *g*'s of acceleration of intense, low-shear mixing for:

- 10x — 100x faster processing
- Highly repeatable processing results
- Exceptional ingredient distribution
- Hazardous material compatible options
- Direct scaling from laboratory to production without increases in processing time

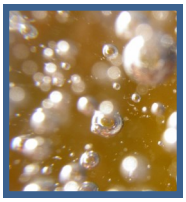
Capacities (Batch Basis)

***Lab*RAM™ II -** 1.1 lbs. (1 kg)
***Omni*RAM -** 11 lbs. (5 kg)
RAM 5 - 80 lbs. (36 kg)
RAM 55 - 920 lbs. (419 kg)

Witness RAM Technology First Hand, with Your Own Materials:

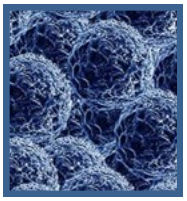
Contact today to arrange a FREE RAM demonstration and mixing tests at your facility.

Solids/Powders



Liquids/Gases

Viscous/Slurry



Coating/Nano

Mill/Grind

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