

Mixing Application Bulletin

Blending Polyethylene Pellets With Carbon Black



Resodyn Acoustic Mixers' second generation technology, LabRAM 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 LabRAM II bench-top mixing systems and accessories. (www.resodynmixers.com)

Milling and Coating with RAM

Coating larger particles with smaller ones is a common processing application, and milling is often a part of the same

process. In the image on the left, carbon black (a nano powder) is processed with plastic pellets shown in the completed mix image in the center.

The image on the right shows an enlarged view of the • Batch Size: 200 grams of polyethylene and 0.75 pellets before and after coating.

RAM[™] processing milled the agglomerated carbon black and coated all of the plastic pellets in less than 8 seconds, illustrating RAM's ability to effectively apply a uniform coating on larger particles.







Processing Parameters

- Average Pellet Size: 0.125"
- Carbon Black Agglomerates: > 0.040" in diameter
- grams of carbon black
- The use of RAM[™] technology for coating of pellets is efficient and there is no need for additional coating agents such as oils.

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





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Innovative Mixing Solutions

RAM Product Family

How You Think About Mixing and Processing



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)

LabRAM[™] II - 1.1 lbs. (1 kg) OmniRAM - 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. 406-497-5333 info@resodyn.com



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Coating/Nano

Mill/Grind