

# Sonolator Application Card – Silicone Emulsions



The **Sonolator**™  
High-Pressure Ultrasonic Mixing and Homogenizing Systems

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Sonic's Sonolator high-pressure homogenizing systems have been widely used to form silicone oil and water emulsions. Silicones are semi-organic polymers with very low surface tension, high thermal stability, good water repellency, and high dielectric strength. These properties make it quite useful in many applications such as mold releases, antifoams, cosmetics, textiles, and more. Our Sonolator systems subject the silicone/water mix to high pressures, cavitation and fluid acceleration and effectively reduces the oil droplet size to sub-micron levels, if needed. This makes for a stable emulsion with long shelf-life properties and no separation.

There are numerous advantages to using the Sonolator to make silicone emulsions, such as lower pressure requirements, superior emulsion quality, better shelf life and stability; but most important is the Sonolator's ability to be used in a Dual-Feed format where the silicone and water are metered with separate pumps from bulk storage into the Sonolator and instantly emulsified. Finished product is created as quickly as we can pump the 2 phases through the complete Sonolator system, no process tanks are required for premixing. The system can be expanded to include other pumps to meter additives, emulsifiers, etc. Sonic designs and fabricates the complete system to meet your needs and often include pumps, VFDs, PLC controls, flow meters, and more.

Call Sonic to discuss your application needs further. We offer Complimentary Lab Testing so you can see how well our Sonolator will work for you!

