

Sonolator Application Card – Carbon Black Dispersions



(203) 375-0063

www.sonicmixing.com



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

Sonic's Sonolator high-pressure homogenizing systems have been widely used to disperse carbon black pigments. Carbon black is quite popular due to its permanence, tinting strength, opacity and small particle size, as small as 10 millimicrons. Carbon black particles tend to fuse together into aggregates that are difficult to disperse, those with carbon-oxygen complexes are easier to disperse. Carbon black is commonly used in paints, enamels, printing inks, nylon and plastic colorings, latex mixtures, wax mixtures, photo coatings, and more. In many cases dispersing agents are used to assist in the break down of fused particulates.

Our Sonolator systems use a PD pump to force the carbon black premix through a specially engineered Orifice, generating pressure and cavitation. The mix then exits the Orifice at extremely high velocity (>300 ft/sec), striking a Blade in its path that helps generate excessive cavitation. The fluid acceleration, cavitation and pressure work together to dramatically reduce agglomerates, thereby improving product stability and appearance. In some cases, our RotoMill Colloid Mill is used to initially grind particles, this helps with difficult blacks that do not have carbon-oxygen complexes. The Sonolator's unique ability to impart severe shear via fluid acceleration, pressure and ultrasonic cavitation allow to effectively disperse these pigments with relative ease.

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!

