



## **Concrete Solutions, Inc.**

*Sound solutions for the transportation industry*

### **SoundSorb® Manufacturing Advantages Over Other Sound Absorptive Materials**

- **Achieves premier acoustical performance.** Achieves Noise Reduction Coefficient (NRC) 1.0
- **Meets DOT and transit authorities ASTM standards for approval for acoustical materials.**
- **Lowest manufacturing cost of all transportation noise mitigation materials and can be produced anywhere in the world at any qualified concrete precast facility.**
  1. **SoundSorb light-weight cementitious architectural/acoustical treatment is a proven acoustical cement-based material** that can be added to any reflective noise wall design as a surface treatment. It provides excellent sound absorptive properties (NRC 1.0) to the panel with no design re-engineering required to the panel, as it only adds 7-9 lbs/SF to the surface of the panel. A cement to cement wet chemical bond provides excellent natural adhesion (no adhesives necessary when pouring SoundSorb onto fresh/wet concrete panels) lowering production costs.
  2. **Low cost cement based ingredients:** All non-hazardous cementitious material sourced local to the construction project location except for a small amount of CSI ingredient additives.
  3. **Lowest cost manufacturing equipment:** SoundSorb is wet cast in a typical concrete precast facility nearest the construction project location reducing transportation costs. Requires minimal specialty equipment to manufacture (equipment can be leased from CSI in USA). Competitors manufacturing requires expensive equipment set up causing few locations, increasing the cost of the acoustical product and shipping.
  4. **Low cost texturing achieves full variety of premier textures with ease.** A variety of low cost stamping devices (fiberglass, wood, plastic, elastomeric liners, etc.) may be used, as SoundSorb is easily wetcast on one or both sides of the panel. Often the most difficult forming task to achieve by competitors is quality texture and acoustical performance. SoundSorb can be stamped with any texture liner made from low tech materials and this reduces the need for expensive concrete texturing equipment, as well as, provides endless variety of textures. In addition, no form release is required with SoundSorb (very unusual for wetcast architectural materials). Most competitors are limited by the texture, as certain texture is required to achieve very modest noise reduction coefficient of NRC .80. SoundSorb does not require texture to provide excellent sound absorptive properties; however, sound absorption and aesthetics are enhanced when any additional texture is utilized. The current noise wall texture trend reflects relative historical aspects of the community.
- **Available in any color** by using concrete stains or using iron oxide pigments (competitors have color limitations).
- **Proven durable outdoor acoustical material worldwide:** Performance for 30 years.
- **Ease of manufacturing worldwide.** Very similar to concrete precast operations, uses local precast facilities, local ingredients and local labor. Precaster typically works with transportation authorities. Competitors use specialized manufacturing equipment, forms and facilities with ingredients difficult to source and must ship long distances to construction location.
- **Extremely versatile & durable material:** Can be wetcast on irregular surfaces or curved surfaces and stamped for texture on curved surfaces. Can be cut to size and repaired if needed.
- **SoundSorb light-weight cladding and lightweight wall panels** available in a variety of sizes or shapes. Competitors do not have acoustical material that provide multiple light weight size and shape options.
- **Interior remains dry with the use of a specialized water repellent allowing acoustical performance during all wet weather.** Most other sound absorptive materials can absorb water and do not remain acoustical.
- **Anti-graffiti coatings available to apply to SoundSorb.**
- **No maintenance material- washable with water or steam clean if ever required**
- **Fireproof material**
- **Freeze-thaw Resistant**
- **Lifecycle of concrete**
- **Cushions the impact of errant vehicles**
- **Manufactured with non-hazardous environmentally friendly recycled materials.**