

Sonophone - 1

Spray Applied Aesthetically Pleasing Superior Finish

Product Information

Sonophone 1 is a spray-applied acoustical plaster specially designed for interior sound absorption applications. **Sonophone 1** provides an attractive white surface.

Sonophone 1 is a cementitious spray that requires only the addition of water on the job site to form a consistent pumpable slurry.

It is ideal for new construction, repair or remodelling work. It may be applied over gypsum panel, concrete, base coat plaster and steel surfaces. Uses include convention centres, schools, educational and religious facilities.



Features and Benefits

- **Excellent Sound Absorption Characteristics**
Tested in accordance with ASTM C 423 and E 795, NRC of 0.75 at 25mm (1 inch)

- **Aesthetically Superior**
Uniform, seamless finish available in a variety of textures and colours
- **Hourly Fire Protection Ratings**
UL classified for use in a wide range of UL designs and restrictions can be obtained by contacting an AVI representative.
- **Excellent Surface Burning Characteristics**
Sonophone 1 achieves a flame spread rating of 0 and smoke developed dating of 0 when tested in accordance with ASTM E-84.
- **Excellent Light Reflectance**
Sonophone 1 achieves light reflectance indices of .86 when troweled smooth and .83 with a sprayed texture when tested in accordance with ASTM C-523.
- **Fast and Efficient Application**
Sonophone 1 requires only the addition of water and the use of conventional plaster mixers and spray equipment. It may be applied in passes up to 13 mm (1/2) thick.

Delivery and Storage

Sonophone 1 shall be kept dry until ready for use. Packages of material shall be kept off the ground, under cover and away from damp surfaces. All materials that have been exposed to water before use shall be discarded. Stock of material is to be rotated and used before the expiration date.

Acoustical Performance Characteristics

Sound Absorption Coefficient at Given Hertz								
Thickness	Frequency							
	Mount	125	250	500	1000	2000	4000	NRC
13mm (1/2 in.)	Solid	.02	.10	.28	.70	.94	.88	.50
25mm (1 in.)	Solid	.04	.30	.80	1.00	.88	.93	.75
13mm (1/2 in.)	Lath	.19	.56	.68	.72	.79	.89	.70
25mm (1 in.)	Lath	.28	.74	.80	.82	.91	.94	.80

Test conducted by Riverbank in accordance with ASTM C 423 and E 795

Physical Performance Characteristics

Property	Sonophone 1 (Performance Values*)	Test Method
Dry Density – minimum - typical	240 kg/m ³ (15 pcf) 368 kg/m ³ (23 pcf)	ASTM E 605
Air Erosion	0.003 g/m ² (0.000 g/ft ²)	ASTM E 859
Bond Strength	1173 kg/m ² (240 psf)	ASTM E 736
Compressive Strength	.17 MPa (26 psi)	ASTM E 761
Colour	White, others upon request	

*Physical Properties reported for the typical in-place density

Surface Preparation

Prior to the application of Sonophone, an inspection shall be made to determine that all surfaces are acceptable to receive **Sonophone 1**. All surfaces must be clean, dry and free of oil, water soluble material and other contaminants. Surfaces must be sound, and well attached to a secure substrate capable of supporting the wet weight of **Sonophone 1**.

Gypsum Wallboard: Partitions and ceiling constructed with gypsum wallboard should be finished with conventional joint treatments. When gypsum wallboard surfaces are dry, apply a prime coat of an approved bonding agent over the entire surface of the wallboard prior to application of **Sonophone 1**.

Concrete Surface: New concrete should be aged a minimum of 60 days prior to **Sonophone 1** application. Projections and edges remaining after removal of forms should be ground down such that a smooth surface is attained. Grinding dust and other foreign matter should be removed prior to **Sonophone 1** application. Apply an approved bonding agent over the surface of the concrete to receive **Sonophone 1**.

Galvanized Steel Surfaces: Remove dirt or oils that may be present on the galvanized steel surface.

All Non-Galvanized Steel Surfaces: Remove any loose rust, mill scale, dirt or oils that may be present on the steel surface. All non-galvanized steel surfaces must be painted with an approved rust inhibitive paint.

Mixing

Sonophone 1 shall be mixed by machine in a conventional, plaster-type mixer or a continuous mixer specifically designed for lightweight cementitious plaster-based materials. The mixer shall be kept clean and free of all previously mixed material. The mixer speed and mix time in a conventional mixer shall be adjusted to give adequate blending of the material and a mixer density of 609-721 kg/m³ (38-45 pcf).

With a conventional mixer, use a suitable water metering device and add all the water to the mixer with the blade turning. Use approximately 20.8 to 24.6L (5.5 to 6.5 gal) per 20.4 kg (45 lbs) bag of **Sonophone 1**. Mixing shall continue until all material is thoroughly wet and the mix is lump-free with a creamy texture.

Temperature and Ventilation

- An air and substrate temperature of 4.4°C (40°F) minimum shall be maintained during and for 24 hours after application of **Sonophone 1**.
- Provision shall be made for ventilation to properly dry the plaster after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided.

Application

Application of **Sonophone 1** can be made in the following sequence:

- For thickness of approximately 13mm (1/2 in.) or less, apply in one pass.
- For thickness of 16mm (5/8 in.) or greater, apply subsequent passes after the first is set.

Sonophone 1 shall not be used if it contains partially set, frozen or caked material. **Sonophone 1** may be spray applied using standard plastering type equipment or continuous mixer/pump units over a wide range of pumping rates. Orifice size and air pressure should be adjusted to yield the desired finished texture.

Safety

Sonophone 1 is slippery when wet. The general contractor and application shall be responsible for posting appropriate cautionary **SLIPPERY WHEN WET** signs. Signs should be posted in all areas in contact with wet material. Anti-slip surfaces should be used on all working surfaces.

A Material Safety Data Sheet for Sonophone 1 is available upon request.