QuietCoat 118 Application Notes

QuietCoat 118 excels at deadening sound for steel, aluminum, plastics, composites and other non-porous materials.

QuietCoat 118 is a new high technology viscoelastic polymer coating to make any material quiet. Excellent for removing (absorbing) unwanted noise and vibration in metal, HVAC systems, motors, engines, gears, etc. QuietCoat 118 is a water-based, non-toxic, no-VOC product that will not burn.

QuietCoat 118 converts the kinetic (noise) energy into heat energy. You can theoretically measure that energy conversion, but it's less than 0.1° Fahrenheit. By absorbing vibration, noise can be reduced by up to 20dB – a remarkable 75% of the perceived noise, depending on application.

QuietCoat 118 is easily applied on any surface by brush, roller, or sprayed on with a spray gun using an air compressor or airless paint sprayer. The more coats you apply and the thicker you apply it, the more noise will be reduced.

Surface Preparation: All grease, oil, lubricants, waxes, polishes, or other materials that can prevent Quiet(Car/Boat/Coat/Ship) from adhering must be removed. Most of these materials can be removed with pressure washing or an aggressive household cleaner such as Formula 409. Paint does not need to be removed; however, smooth surface or glossy coatings must be abraded by sandpaper or sandblasting. Loose dirt, rust or other debris must be removed by abrasion or acid wash. If the cleaning process exposes bare, anodized or powder coated metal, the metal should be abraded and/or primed with an adhesion promoting primer such as Dura-Clad Universal Bonding Primer. Follow paint manufacturer's instructions for surface preparation before priming. Proper surface preparation is a key element of a long lasting a durable coating.

QuietCoat 118 Preparation: QuietCoat 118 liquid must not be allowed to freeze prior to use or while it is curing. After it has completely cured, it can withstand temperatures from –120°F to 350°F without failing. For application methods such as rolling or brushing QuietCoat 118 can be applied as it comes from the factory. Do not thin the material.

Application Methods: QuietCoat 118 can be applied using a brush, roller or spray. The damping ability of the material is un-affected by application method. The goal is to apply one or more coats that accumulate to 1-3mm. Brushing is recommended for test applications. Undercoating may not be required. The surface must be free of oils and loose rust. Bare steel surfaces must be abraded and/or primed before applying Quiet(Car/Boat/Coat/Ship). Sandblasting the surface is highly recommended. Read full instructions before application, available from Memtech Acoustics at 248.289.1123.

Spraying Pros: Spraying is the most efficient method to cover larger areas or for high volume production use, especially with irregular surfaces that are hard to reach with roller or brush. Spraying quickly applies a thick, even coat, that will appear somewhat bumpy (this is normal). Use either a standard air sprayer or airless compressor (preferred, see requirements below). **Cons:** Requires surface protection, e.g. masking, covering with tin foil, plastic wrap or paper; requires cleaning the spray equipment. Typical thickness per layer is about 1mm (0.040").

Rolling Pros: Rolling is much more controlled and precise than spraying and minimizes over-spray and splattering. Therefore less protective preparation is needed when rolling QuietCoat 118. Use a standard paint roller with ½" nap. **Cons:** Rolling will typically apply less material than spraying therefore, applications requiring two coats when sprayed, may require three or more when rolled. Typical thickness per layer is about 0.5mm (0.020"). Rolling is not a preferred method unless

absolutely necessary as it will only apply very thin layers. In most cases, 6-8 layers will be necessary instead of 3.

Brushing Pros: Applies lots of material quickly. Use any standard brush that is appropriate for water-based latex paint, and then wash or discard. This is the best method for testing QuietCoat 118 in your application, and is the easiest way to apply. **Cons:** The surface of the QuietCoat 118 may show brush marks and brushing may give an uneven thickness. Typical thickness per layer is about 1mm to 2mm (0.080”).

Using QuietCoat to Coat Metal Studs

1. Wipe the inside of the metal stud with a weak acidic solution such as distilled white vinegar. Metal studs are often coated with a light oil that must be removed for the Quiet Coat to adhere.

2. With a brush or spray gun, coat the inside of the stud with approx. 1mm of Quiet Coat.

3. Allow to dry as recommended in the Drying & Curing section. Apply a second coat if increased damping is desired.

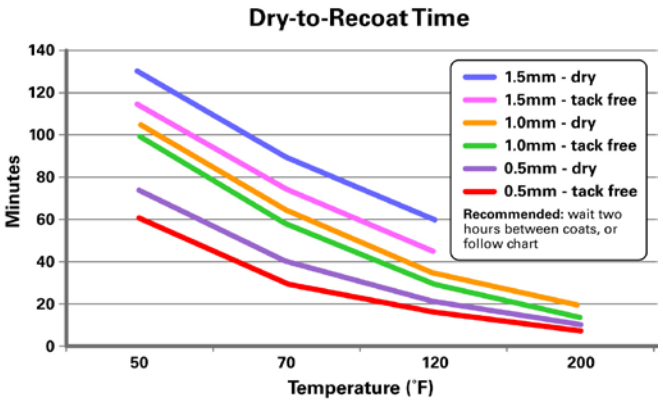
Spraying Equipment

Airless Sprayers: Consumer-grade and professional spray guns such as Graco and Wagner that develop at least 4,000 psi work well. Use a 0.019” (0.5mm) tip and keep the siphon hose short (under 3 feet is preferred). This small nozzle size is not usually standard and you may have to purchase it separately. Be sure to clean the sprayer using soap and water within 30 minutes (after last use) or the material will begin to set inside the sprayer.

Air Gun: You will need a special air spray gun that is designed for very high viscosity materials. You will also need a compressor with at least a 2-gallon tank that develops 90 psi. A 6-gallon or larger air tank is preferred so the tank doesn’t have to recharge (get pumped full of air) too often. Using a large funnel and a ladle, carefully fill the can with QuietCoat 118 (from a 1-gallon or 5-gallon bucket). Then you may spray until the can is empty. Refill as necessary.

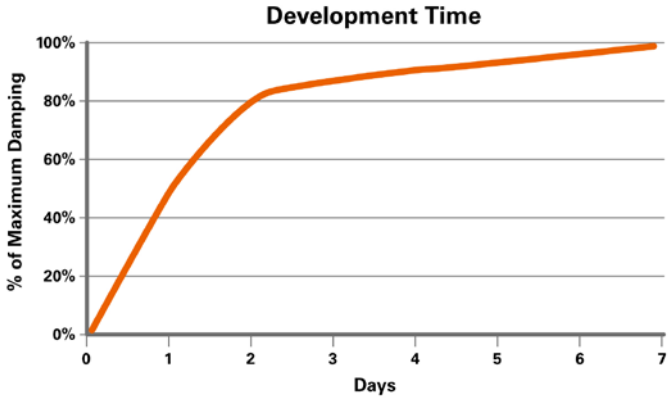
Drying & Curing Time: Being water based, QuietCoat 118 needs to dry by evaporation during the cure cycle. Water will evaporate more readily when the following conditions exist: higher temperature, increased air circulation, lowered relative humidity. These conditions along with layer thickness contribute to drying time. Thicker layers require longer drying times. Application of second or successive coats require the previous one to be dry, therefore the goal normally will be to apply as much QuietCoat 118 as possible in each coat keeping in mind the effect on drying time.

Typically, apply the first coat and wait four hours for it to become tack-free. Then, apply a second coat if you wish, and wait four hours for it to become tack-free. Then, if you wish, you may apply a third coat. *Thicker application and more coverage greatly enhance the noise and vibration absorption properties.*



Development Time

While you can use the treated surface a few hours after the last coat, the vibration absorbing properties will continue to get better for up to one week after the final coat is applied.



Clean Up & Disposal: QuietCoat 118 is water based and can be treated the same as any water-based latex paint. Keep a bucket of warm soapy water handy. If you mistakenly brush, roller or spray material where you don't want it, just wipe it off. It takes QuietCoat 118 at least 20 minutes to get tacky, but the quicker you wipe it off the better. Keep in mind that after QuietCoat 118 dries, it is very hard to remove.

For paint brushes and rollers, either wash and keep, or discard. When using a spray gun, put each plastic part in the water a soon as you finish using it. Wash the parts in warm water to remove all material. Do not allow the material to dry in or on the spray gun and its parts. Wipe the tip of the spray gun off with a paper towel dipped in the water. The more care you take cleaning your spray gun the longer it will last.

Dispose used cans and materials in the same manner as latex paint. Be aware of your community's disposal rules. Be kind to the environment – please don't pour excess material into sewers or open water supplies.

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