

NOISE CONTROL EXPERTS

VibroGUARD

OMNI PROTECTION

CONTROLLING NOISE AND VIBRATIONS

VERSUS



Omni Protection



VERSUS VibroGuard is a fast drying heavy bodied, low density, water based viscoelastic vibration damping compound, formulated with hollow ceramic microspheres, sound absorbing fillers and high adhesion resins.

Optimized to suit applications where vibration levels are significant and cause problems - the advanced formula was developed for acoustic improvement of structures that are exposed to vibrations and noise impact – such as airplanes, trains, automobiles and buildings.

Developed with a special polymer technology, VibroGUARD is a lightweight, non-toxic structural damping material that is suitable for exterior and interior use and anywhere that vibrations and noise can impact structural longevity, comfort and function.

With exceptional vibration damping properties and compliance to industrial and military codes it performs across several industries, and is now developed for building applications. VibroGUARD is easy to apply by simply spraying, rolling, brushing or troweling onto surfaces. Once dry, the cured film is UV, water and chip resistant and effectively damps vibrations and noise.

VibroGUARD is a superior extensional damping compound suitable to be applied directly to structures (steel, aluminum, fiberglass, gypsum, wood and alloys) where sound and vibration damping is required.

VibroGUARD, a visco-elastic vibration damping material, can be used as a constrained layer, designed to reduce structural vibration and sound transmission, or as an exterior layer, namely on steel and aluminum surfaces – when impact sound damping is required.

VibroGUARD was developed to meet market noise reduction requirements across aviation, marine, automotive, industrial and OEM markets. The combination of a high loading of the LOW-DENSITY Ceramic Microspheres with their vacuum centers and the absorbent pigment fillers reduces sound and vibration transmission in those elements - and is an advanced solution for reducing up to 70% of noise and vibration problems.



The absorption power of hollow ceramic microspheres

With thousands of microspheres per SQM, VibroGUARD offers vibration damping protection solution. Ceramic microspheres, with millions of microcells, are nature's vibration damping powerhouse. Vibration energy is lost through heat and the result is a thin layer that achieves much more than its thickness should in theory.

Advantages:

- Excellent sound & vibration dampening
- Won't crack or peel
- Incredible Adhesion to surface
- Environmentally friendly
- Application: Brush, Roller or Hopper Gun
- Fast drying
- Soap and Water Cleanup
- Very Flexible
- Light Gray but can be painted over*
- Nontoxic

Applications:

- Metal roofing, floors and wall cladding
- Enclosures for machinery and industrial equipment
- Building elements – partitions, floors, roofs, ceilings etc
- HVAC ducts, plant rooms and substations
- Stainless steel applications (sinks, bowls)
- Hospital equipment and clean room applications
- Whitegoods and dishwashers
- Back of house, garbage chutes, and utilities
- Sewage pipes
- Acoustic partitions & doors



For best application – when painting over is required – use WallGUARD paint, for long lasting protection and perfect material suitability.

When used for construction purposes, all seams must be caulked with AcuGUARD acoustic compound.

**Application Instructions:**

Substrate must be clean and dry before you apply VibroGUARD.

For best results apply in two moderately thick layers and allow to dry between coats. A stippled surface is more sound dampening than a smooth surface, so don't worry about trying to smooth the coating out too much.

Brush Application:

Brush on a heavy coat at least 3 times heavier than typical paint and allow drying. Dabbing in the wet material helps create a rougher, more efficient layer.

Apply second coat if necessary, after first coat has dried.

Roller Application:

Use a 3/4" nap and up to a 1-1/4" nap to create a thick, rough layer. Apply second coat if necessary, after first coat has dried.

Hopper Gun Application:

Use a large orifice and allow the VibroGUARD to spatter the surface. Do not try to make the coating smooth, it works best with a rougher finish.

Coverage:

Approximately 5.5 m2 per gallon – depends on application.

Available in 1 Gallon and 5 Gallon pails

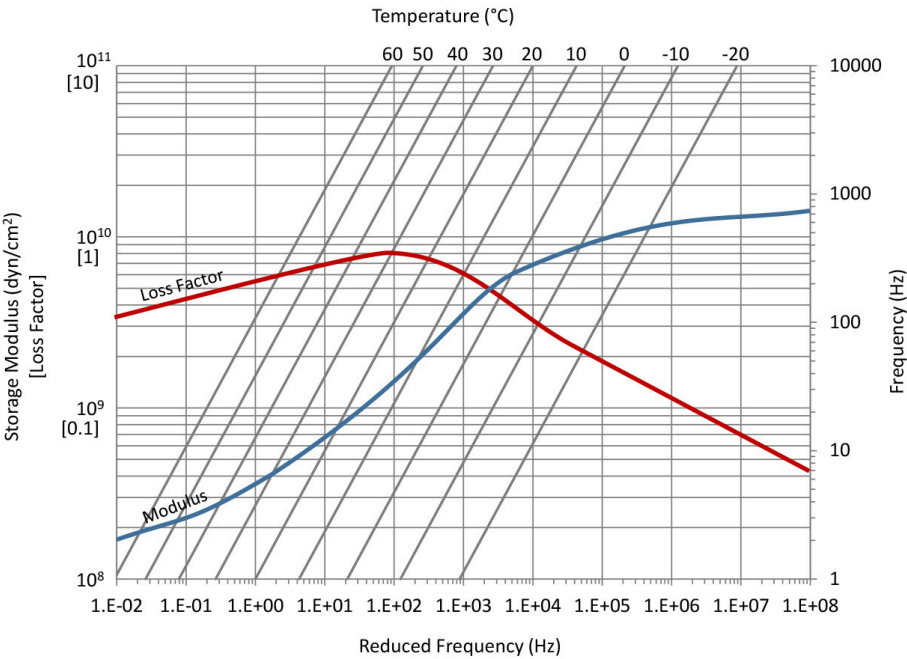
Appearance

Medium gray gritty paste



Acoustic Performance:

Determination of dynamic mechanical properties. Flexural vibration - Nonresonance method



Tested to ISO 6721-5:1996
Report Number: 12716RA

- How to read a reduced frequency nomogram:**
1. Start by selecting the frequency (Hz) on the right-hand vertical axis.
 2. Follow this value horizontally to the left to where the diagonal temperature isotherm intersects.
 3. Draw a vertical line through the frequency and isotherm intersection, find the point where this line intersects the modulus and loss factor curves.
 4. Draw horizontal lines from these points to the left-hand vertical axis to read the values.

Acoustic Data:

System loss factor

Temperature (°c)	Application ratio of VibroGUARD on 1 mm steel (Product thickness:Substrate thickness)		
	1:1	2:1	3:1
15	0.07	0.23	0.38
20	0.04	0.15	0.24

Tested to ISO 6721-3:1994
Report Number: 27881RA



Acoustic Performance:

Rating of sound insulation - Airborne sound insulation

freq. (Hz)	R (dB)	Roct (dB)
50	23	
63	20	21
80	21	
100	25	
125	32	29
160	39	
200	45	
250	50	48
315	53	
400	57	
500	59	59
630	61	
800	64	
1000	66	66
1250	69	
1600	75	
2000	77	76
2500	77	
3150	73	
4000	73	74
5000	77	

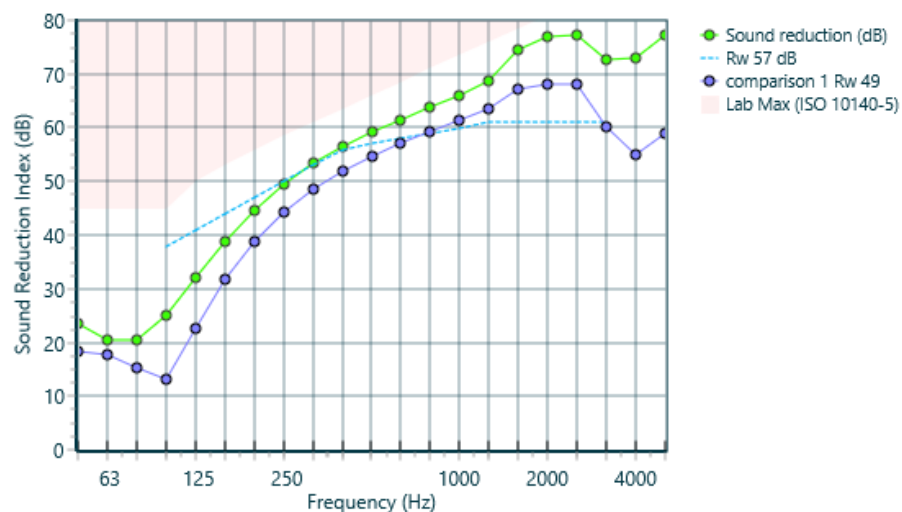
Rw 57 dB

C -5 dB

Ctr -13 dB

Calculated Values

According to ISO 717-1:2020



System description

100mm gypsum double layer partition with 50mm steel frame & 10kg/m³ 50mm fiberglass insulation.

● Comparison 1 = without Vibroguard

● Sound Reduction = with 1 layer 1mm VibroGUARD



Acoustic Data:

Acoustic values comparison, for soundborne insulation, in a gypsum partition - with and without VibroGUARD (1mm layer, 1 side)

Acoustic Values	Airborne sound insulation comparison		
	Without VibroGUARD	With VibroGUARD	Difference
Rw	49 dB	57 dB	8 dB
C	-8 dB	-5 dB	3 dB
Ctr	-16 dB	-13 dB	3 dB
Rw + Ctr	33 dB	44 dB	11 dB

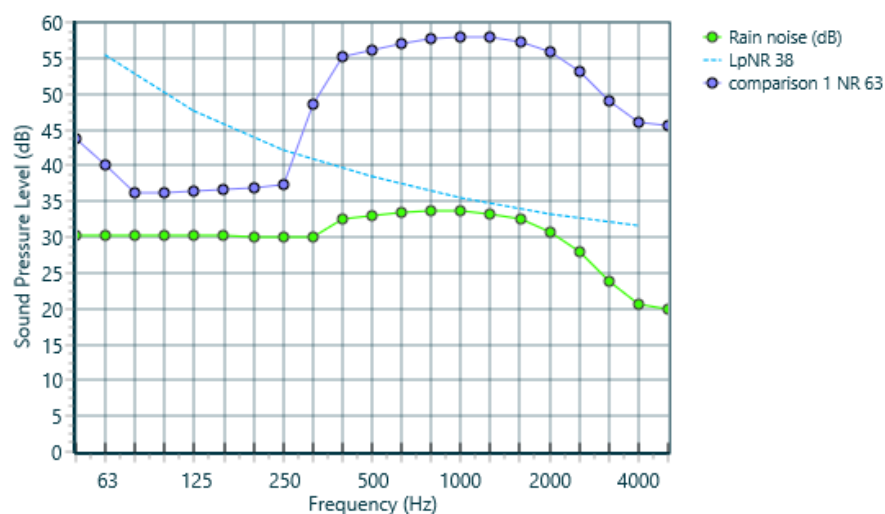
** Higher Rw values = better insulation **



Acoustic Performance:

Rating of sound insulation - Sound generated by rainfall on building elements

freq. (Hz)	Lp (dB)	Roct (dB)
50	30	
63	30	35
80	30	
100	30	
125	30	35
160	30	
200	30	
250	30	35
315	30	
400	32	
500	33	38
630	33	
800	34	
1000	34	38
1250	33	
1600	32	
2000	31	35
2500	28	
3150	24	
4000	21	27
5000	20	



Lp NR 38

Calculated Values

According to ISO 140-18:2006

System description

Rain: Natural rain Rainfall 40.0 mm/hr Room volume 50 m³, Reverberation Time 0.5s

0.6mm Steel Roofing (PBR Panels) Panel size 2.4x2.4m. Mass 23.5 kg/m²

● Comparison 1 = without Vibroguard

● Sound Reduction = with 1 layer 1mm VibroGUARD



0.6 mm

Acoustic Data:

Acoustic values comparison, for rainfall noise insulation, 0.6mm corrugated steel - with and without VibroGUARD (1mm layer, 1 side)

Acoustic Values	Rainfall sound insulation comparison		
	Without VibroGUARD	With VibroGUARD	Difference
LpNR	63 dB	38 dB	-25 dB

** Lower LpNR values = better insulation **



COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Ethylhexyl Benzoate	5444-75-7	1-5
n-(3, 4-Dichlorophenyl)-n, n-Dimethylurea	330-54-1	<1
·7 alpha ethylhydri 1H,3H,5H oxazolo (3,4 c)oxazole	7747-35-5	<1
2-Amino-2-methyl-1-propanol	124-68-5	<1
Ammonium hydroxide	1336-21-6	<1

** if chemicals name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret **

FIRST AID MEASURES

Description of first aid measures

- **General Advice** If exposed or concerned: Get medical advice/attention.
- **Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention.
- **Skin Contact** Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- **Inhalation** Remove to fresh air. Seek medical attention.
- **Ingestion** Drink 1 or 2 glasses of water. Call a physician.

Most important symptoms and effects, both acute and delayed

Breathing vapors may result in headaches, nausea, and irritation to the lungs. May cause dermatitis or irritation in some individuals upon prolonged contact. Prolonged contact may cause irreversible damage to eye. Exposed individuals may experience eye tearing, redness and discomfort. May cause nausea, vomiting and/or diarrhea if ingested. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. May adversely affect renal, hepatic, neurologic processes, spleen, and thyroid.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.