Xtreme **Dynamat**®

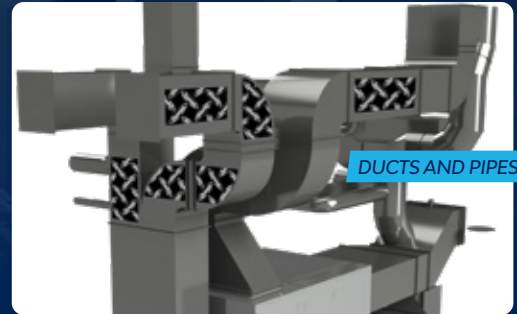# Noise and Vibration Control

» *Quiet Your Appliances*

» *Ductwork & Pipes*

» *Stainless Steel Sinks*

» *Easy Peel and Stick*

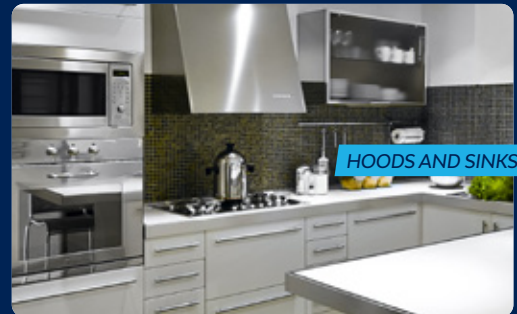## Stop Noise At The Source

Unwanted noise produced by vibrating sheet metal is a common problem in every household. Appliances, air conditioners, duct work and piping can be made quiet with an application of Dynamat. With Dynamat installed, the noise is transformed into silent energy through a process called "Vibro-Acoustic Energy Conversion". Dynamat converts the vibrational energy into low-grade thermal energy. The result is a more quiet and comfortable living environment. Now more thoroughly enjoy music, movies and everyday family life. Use Dynamat Xtreme throughout your home and get "Better Sound" and "Quieter Living".

WITHOUT | **WITH DYNAMAT**

Surface | Surface | Dynamat

FOR USE THROUGHOUT YOUR HOME

APPLIANCES

DUCTS AND PIPES

HOODS AND SINKS
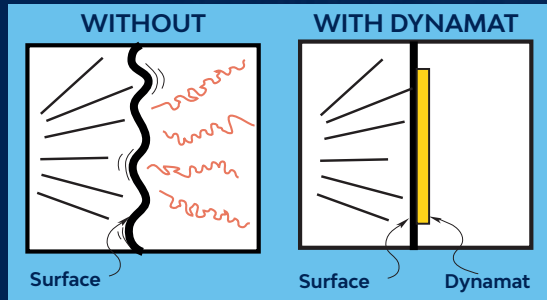
Utility Pak Part No. 50400
2 shts. (4" x 10" ea.) 6.6 sq.ft.

Bulk Pak Part No. 50455
9 shts. (18" x 32" ea.) 36 sq.ft.

ARCHITECTURAL SERIES

Dynamat Inc.
3042 Symmes Road | Hamilton, OH 45015
513.860.5094 | **www.dynamat.com**

DESCRIPTION

Dynamat Xtreme is a patented, light-weight, elastomeric, butyl and aluminum constrained-layer vibrational damper. Dynamat Xtreme conforms and fuses easily to sheet metal and other hard substrates. Material performance is optimized for temperature ranges between -10C to +60C (14F to+140F). Material can withstand temperature extremes between -54C to +149C (-65F to +300F) and is highly resistant to aging.

ACOUSTIC PROPERTIES

The acoustic loss factor "n" is used as a measure of ability to damp structure-borne sound. It states how much vibrational energy (in steel sheets for instance) is converted to heat rather than sound. For constructions containing several layers of damping material, the combined loss factor "n comb" is used. The theoretical maximum loss factor is 1 (no vibration). An undamped 1mm thick steel panel has a loss factor of roughly 0.001 at 200 Hz. Dynamat Xtreme applied to that panel would increase the loss factor to 0.417 @ +20C (+68F). Multiple layers of Dynamat Xtreme can be used to improve sound damping further.

APPLICATIONS

Dynamat Xtreme can be die cut to shape and placed onto the body surface after sheet metal cleaning operation and prior to paint system (typically at the sealer application operation) or on painted panels. Dynamat Xtreme is used as treatment for metal panels, partitions, ducts, doors, bins, panels etc. in railroad cars, buses, automobiles and ships. It is also used for ventilation ducts, relay cabinets, steel furniture, home appliances, sink units, computer equipment, machine tools and for many other purposes.

INSTALLATION

Dynamat Xtreme should be cut to the desired size before the release liner is removed. It may be cut with scissors, knife or die. Remove dust, grease, moisture, and other foreign matter from the application surface. Peel off the release liner. The simplest application technique is to bend the mat slightly and attach it along its shortest edge. The mat is then pressed firmly into place, preferably with a roller for larger pieces. This reduces the risk of leaving air pockets, which reduce the sound damping capacity. The temperature of the mat and application surface should not be below room temperature during fitting. Heating the material is not necessary.

SPECIFICATIONS

Appearance:
Black butyl based core with 4 mil aluminum constraining layer, craft paper release liner

Thickness:
0.067" (1.7mm)

Mass:
0.45lbs./ft.2 (2.20kg/m2)

Acoustic Loss Factor @ Temperature
(Using ASTM method E756 @ 200 Hz):

0.081 @ +14° F (-10° C)

0.240 @ +32° F (+0° C)

0.257 @ +50° F (+10° C)

0.417 @ +68° F (+20° C)

0.259 @ +86° F (+30° C)

0.194 @ +104° F (+40° C)

0.140 @ +122° F (+50° C)

0.094 @ +140° F (+60° C)

Temperature Range (Optimal Performance):
14F to +140F (-10C to +60C)

Temperature Range (Resistance):
-65F to +300F (-54C to +149C)

Adhesive Peel Strength:
42.6 lb./in. (74.8 N/cm) on cold steel

Chemical Resistance:
Resistant to water and mineral oils

Federal Standards Tests:
FMVSS 302: Meets

Handling And Application:
Material must be stored at room temperature for best application

Storage Information:
Number Of Sheets In Stack: 50 max
Material must be stored horizontally in its wrapping