



DESCRIPTION

Dynamat SuperLite is a patented, light-weight, elastomeric, butyl and aluminum constrained-layer vibrational damper. Dynamat SuperLite conforms and fuses easily to sheet metal and other hard substrates. Material performance is optimized for temperature ranges between -10°C to $+60^{\circ}\text{C}$ (14°F to $+140^{\circ}\text{F}$). Material can withstand temperature extremes between -54°C to $+149^{\circ}\text{C}$ (-65°F to $+300^{\circ}\text{F}$) 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 SuperLite applied to that panel would increase the loss factor to 0.234 @ $+20^{\circ}\text{C}$ ($+68^{\circ}\text{F}$). Multiple layers of Dynamat SuperLite can be used to improve sound damping further.

APPLICATIONS

Dynamat SuperLite 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 SuperLite 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 SuperLite 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 2 mil aluminum constraining layer, craft paper release liner

Thickness:

0.044" (1.12mm)

Mass:

0.33lbs./ft.² (1.61kg/m²)

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

0.185 @ $+14^{\circ}\text{F}$ (-10°C)

0.220 @ $+32^{\circ}\text{F}$ ($+0^{\circ}\text{C}$)

0.256 @ $+50^{\circ}\text{F}$ ($+10^{\circ}\text{C}$)

0.234 @ $+68^{\circ}\text{F}$ ($+20^{\circ}\text{C}$)

0.196 @ $+86^{\circ}\text{F}$ ($+30^{\circ}\text{C}$)

0.150 @ $+104^{\circ}\text{F}$ ($+40^{\circ}\text{C}$)

0.113 @ $+122^{\circ}\text{F}$ ($+50^{\circ}\text{C}$)

0.089 @ $+140^{\circ}\text{F}$ ($+60^{\circ}\text{C}$)

Temperature Range (Optimal Performance):

14°F to $+140^{\circ}\text{F}$ (-10°C to $+60^{\circ}\text{C}$)

Temperature Range (Resistance):

-65°F to $+300^{\circ}\text{F}$ (-54°C to $+149^{\circ}\text{C}$)

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



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