Description
Model KDC-E-162 viscoelastic damping compound is used to reduce noise radiated by vibration or shock excited metal surfaces and panels by imparting vibration damping to metal or other hard nonmetallic, shifting the peaks of the generated sound by lowering the natural frequency, and increasing the sound transmission loss.

Model KDC-E-162 Damping Compound has low flame spread and smoke generating properties as tested under ASTM-D635-63 and ASTM-E-162 (see physical data), and is resistant to most commonly used acids, alkalies, and solvents.

Model KDC-E-162 Damping Compound is easily troweled or air sprayed onto a clean surface. Model KDC has a consistency equivalent to sprayable loose paste and does not require extensive stirring or mixing or the addition of thickening agents prior to its usage. Vertical surfaces can be sprayed a thickness of 1/8" (3 mm) with no sagging or slumping. Adhesion is excellent on clean metal as well as on hard nonmetallic surfaces.

When sprayed, model KDC-E-162 provides a tough, flexible, attractive, and non-abrasive stipple effect having a light tan finish. For outdoor applications, the damping compound can be painted with enamel or epoxy-type paints for color matching or to provide additional protection.

Application
Kinetics Damping Compound model KDC-E-162 is suitable for use in a wide variety of applications where it is intended to damp or eliminate the ringing noise caused by vibrating or shock excited metal and hard non-metallic surfaces. Model KDC also is recommended for use in architectural and mechanical equipment applications such as treating of ducts, mixing boxes, sound-proof doors, and metal partitions in the new construction field where it is mandatory to use non-combustible or non-smoke generating materials to meet local fire codes and ordinances.

Spray application of model KDC-E-162 provides an attractive stippled appearance while at the same time decreases the radiated noise level due to vibration or shock excitation and increases the sound transmission loss of the treated material. The damping compound can also be troweled onto the surface to be treated.
Specifications
Kinetics Damping Compound model KDC-E-162 shall consist of a viscoelastic latex emulsion (vinyl base) vibration damping material for application on noise radiating surfaces to reduce the ringing noise due to shock or vibration to a deadened sound.

Model KDC-E-162 shall be non-asphaltic in nature, non-bleeding, and non-odor producing. When applied to a 10" x 10" x .035" (254 mm x 254 mm x 889 micron) panel of primed cold rolled steel at the rate of 0.5 lb/sq. ft. (2.5kg/sq. m) (dry weight) the material shall show no loss of adhesion when subjected to two 25 inch-pound (0.29 kg-M) impacts from a two inch (51 mm) diameter, 1-1/2 lb. (0.68 kg) steel ball at -20°F (-29°C).

When tested under ASTM Specification E-162, model KDC-E-162 shall have a Flame Spread Index, IS of 0.59, and a Smoke Generation Mg of 0.1, and shall be termed as Fire Retardant under ASTM-D635-63 (will not support combustion) and be termed non-hazardous and non-toxic.

Damping efficiency shall be measured by the Geiger-Hamme Thick Plate Test Method, with a 48 dB per sec. decay rate at 60°F (16°C).

Damping Compound shall be Kinetics model KDC-E-162 as supplied by Kinetics Noise Control, Inc.

Physical Properties:
Color: Light Tan
Consistency: Sprayable loose paste
Flash Point: None (water emulsion)
Solids Content: 55% by weight
Weight Wet: 10.9 ± .2 lbs./gal. (1.3 ± 0.09 kg/l)
Weight Dry: 5.75 ± .1 lbs./gal. (0.68 ± 0.05 kg/l)
Temperature Range (cured): -20° to 200°F (-29° to 92°C)
Specific Gravity (cured): 2.04
Chemical Resistance: Resistant to diluted acids, alkali, grease, gasoline, aliphatic oils and vermin.

Surface Flammability Characteristics:
(ASTM-E-162 by U.S. Testing Company, Inc.)
- Flame Spread Index: 0.59
- Smoke Generated, Mg: 0.1
- Fuel Contribution: 0

Thermal Conductivity (k)
0.42 BTU/hr. x sq. ft. x °F/ft.
(6.2 Cal./hr. x sq. cm x °C/cm)

Coverage

<table>
<thead>
<tr>
<th>Wet Thickness* In. (mm)</th>
<th>Coverage per Gallon Sq. Ft. (sq. m)</th>
<th>Wet Weight Lbs./Sq. Ft. (kg/sq. m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16 (2)</td>
<td>25.0 (2.3)</td>
<td>0.44 (2.1)</td>
</tr>
<tr>
<td>1/8 (3)</td>
<td>12.5 (1.2)</td>
<td>0.88 (4.3)</td>
</tr>
<tr>
<td>1/4 (6)</td>
<td>6.25 (0.58)</td>
<td>1.76 (8.6)</td>
</tr>
</tbody>
</table>

Decay Rate: The decay rate at 60°F (16°C) is 48.3 decibels per second at 0.50 lbs./sq. ft. (2.5 kg/sq. m) dry when tested according to Geiger-Hamme Thick Plate Method.