ROUSH®

DYNADAMP™ – DD10A5M

Constrained Layer Damper

DynaDampTM – DD10A5M is a Constrained Layer Damping (CLD) treatment consisting of a dead soft aluminum outer constraining layer laminated with a layer of Roush RA640, a high damping viscoelastic polymer. The DynaDamp CLD treatment is engineered to reduce noise radiated from surfaces by dissipating the vibration energy through shearing of the viscoelastic polymer layer.

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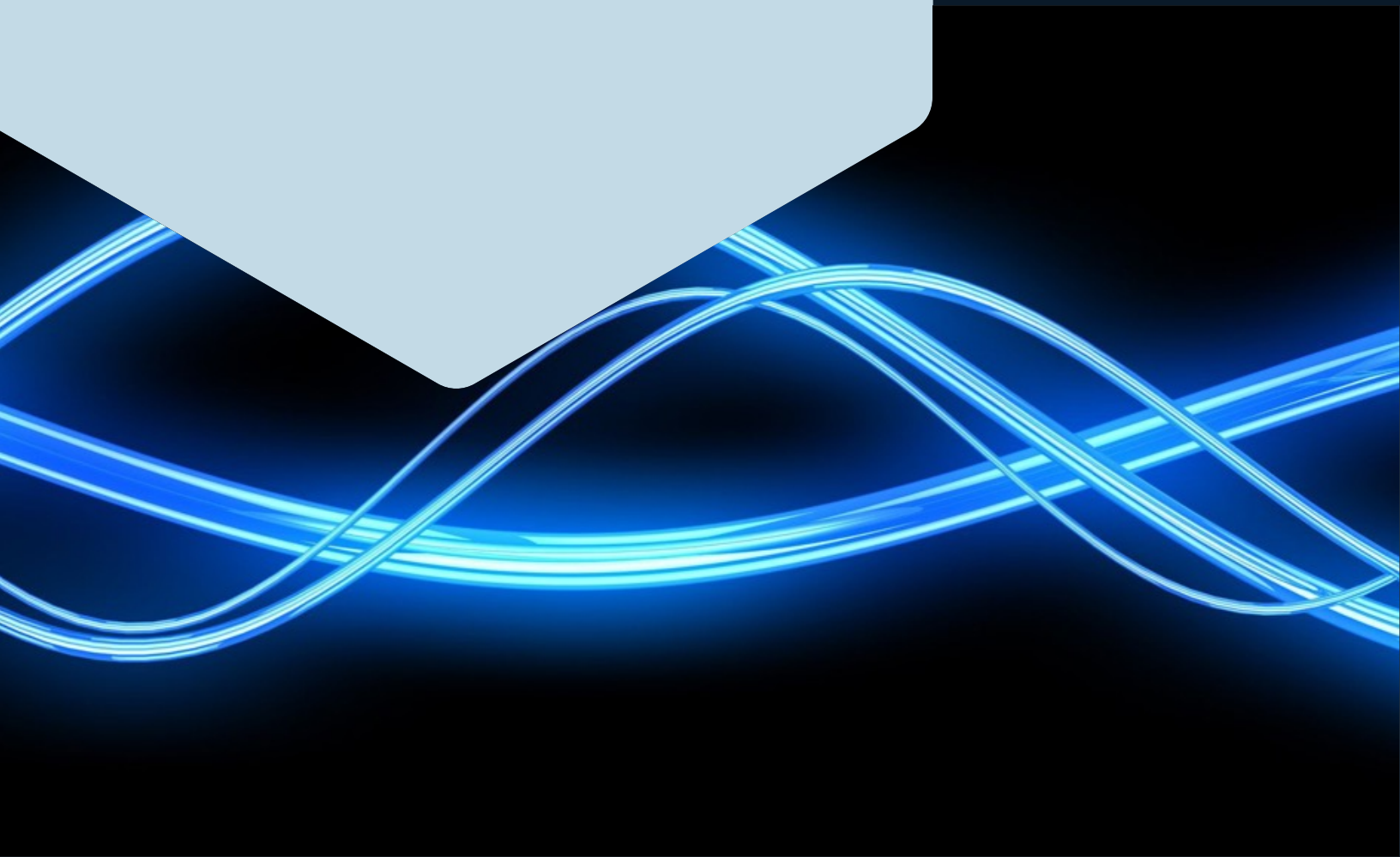
We're focused, we're efficient, and we're at our best when we're challenged to think outside the box — critical traits when our customers' success depends on how quickly we can take their visions from the sketchpad to the marketplace.



FEATURES:

The DynaDamp CLD treatment series can be optimized by tuning the type, thickness, and number of layers to achieve maximum performance on your specific application. Constraining layer materials can range from aluminum and steel (with various coatings) to plastics and carbon fiber. Our adhesives offer superior damping performance with high adhesion and cohesion properties, resistance to UV exposure, and excellent thermal aging properties, resulting in consistent performance over a long product life. With our extensive database of adhesive materials, we can offer materials with excellent damping performance over a broad temperature and frequency range tailored to your application.

TYPICAL APPLICATIONS:

Automotive
- Covers
- Body panels

Office Equipment
- Server Cabinets
- Hard-Disk Drives

Home Appliance
- Dishwashers
- Washing Machines

Aircraft
- Fuselage Skin
- Fuselage Frame

Industrial
- Roofing Panels
- Metal Enclosures

TYPICAL PHYSICAL PROPERTIES OF DD10C5M:

Constraining Layer Type	Dead Soft Aluminum
Constraining Layer Thickness	11 mils
Adhesive Type	Roush RA640
Adhesive Thickness	5 mils
Release Liner	2 mils thick / Clear Polyester
Peel Adhesion2	>5 lbs/in
Shear Adhesion3	>150 hours
Water, Humidity and Solvent Resistance	Excellent
Temperature Stability	Excellent
Peak Damping Temperature Range:	32 to 160°F
Standard Operating Temperature Range:	-40 to 200°F

SHELF LIFE:

One year when stored under cool, dry conditions out of direct sunlight (70°F, 50% RH)

NOTES:

(1) Type 3003-O per ASTM B209-10
(2) ASTM D3330 - 72 hour, RT, 180° Peel, 2 mil Al Foil on SS panels
(3) ASTM D3654 - 1" x 1" sample area, 70°F, 2 kg, 2 mil Al Foil on SS panels

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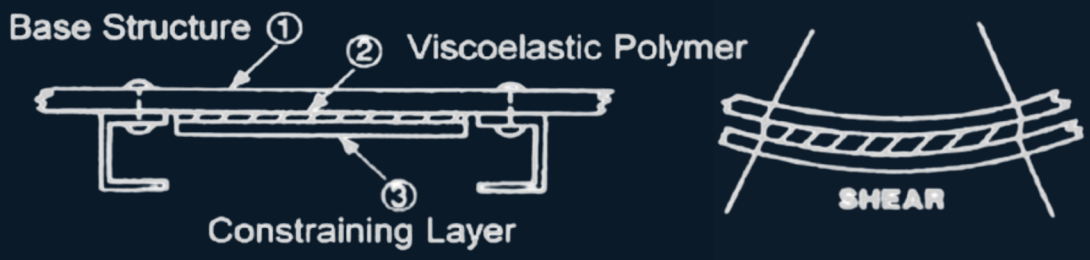
CONSTRAINED LAYER DAMPER BACKGROUND INFORMATION:

Constrained layer damping systems have long been used to control vibration and noise resulting from highly resonant panels. CLD systems are composed of a viscoelastic damping adhesive material and a constraining layer that are adhered to vibrating structures, as shown in the figure below.



APPLICATION INSTRUCTIONS:

For maximum damping performance and adhesion, the steps below should be followed when adhering a CLD to the base structure.

1. Bonding surface must be clean, dry and free of dirt, oil, moisture, etc. A wipe with acetone or similar solvent is recommended.
2. Remove protective liner from DynaDamp CLD.
3. Apply exposed adhesive of CLD to one side of the mating surface and roll across the surface to ensure no air is trapped between the adhesive and base structure.

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