

Eco Damp

SELF ADHESIVE

FOIL CONSTRAINED LAYER DAMPER

Soundown Eco Damp is a pressure-sensitive, constrained-layer damper which has excellent adhesion to many substrates such as oily cold rolled steel, E-coat, primers and topcoats. It also bonds to many plastics including polypropylene. The aluminum foil constraining layer and specially formulated viscoelastic polymer layer combine to give effective vibration damping over a wide temperature range. It is available in various thicknesses and can have different gauge foil face sheets. It is provided in rectangular sheets and can be die-cut for special configurations. Soundown applications specialists are available to help tailor a **Eco Damp** part for your specific needs.

Soundown's Eco Damp is temperature resistant and will maintain adhesion through all automotive bake cycles including 200°C overbake conditions. This allows its application at any stage of the production cycle. It can be applied in panel fabrication or body-in-white before E-coat or afterwards to primed or top-coated sheet metal. It is compatible with automotive coatings and will not contaminate baths, spray operations or ovens.

The superior adhesive properties of **Eco Damp** allow it to be used in horizontal, vertical or inverted applications. It has good conformability and can be applied on complex shapes.

TYPICAL PROPERTIES

COLOR:	Polymer - Black Backing - Aluminum
SPECIFIC GRAVITY:	1.45
HARDNESS:	6.5 - 9.0mm. ASTM D-5
SHELF LIFE:	At least 6 months when stored at 40°C or less

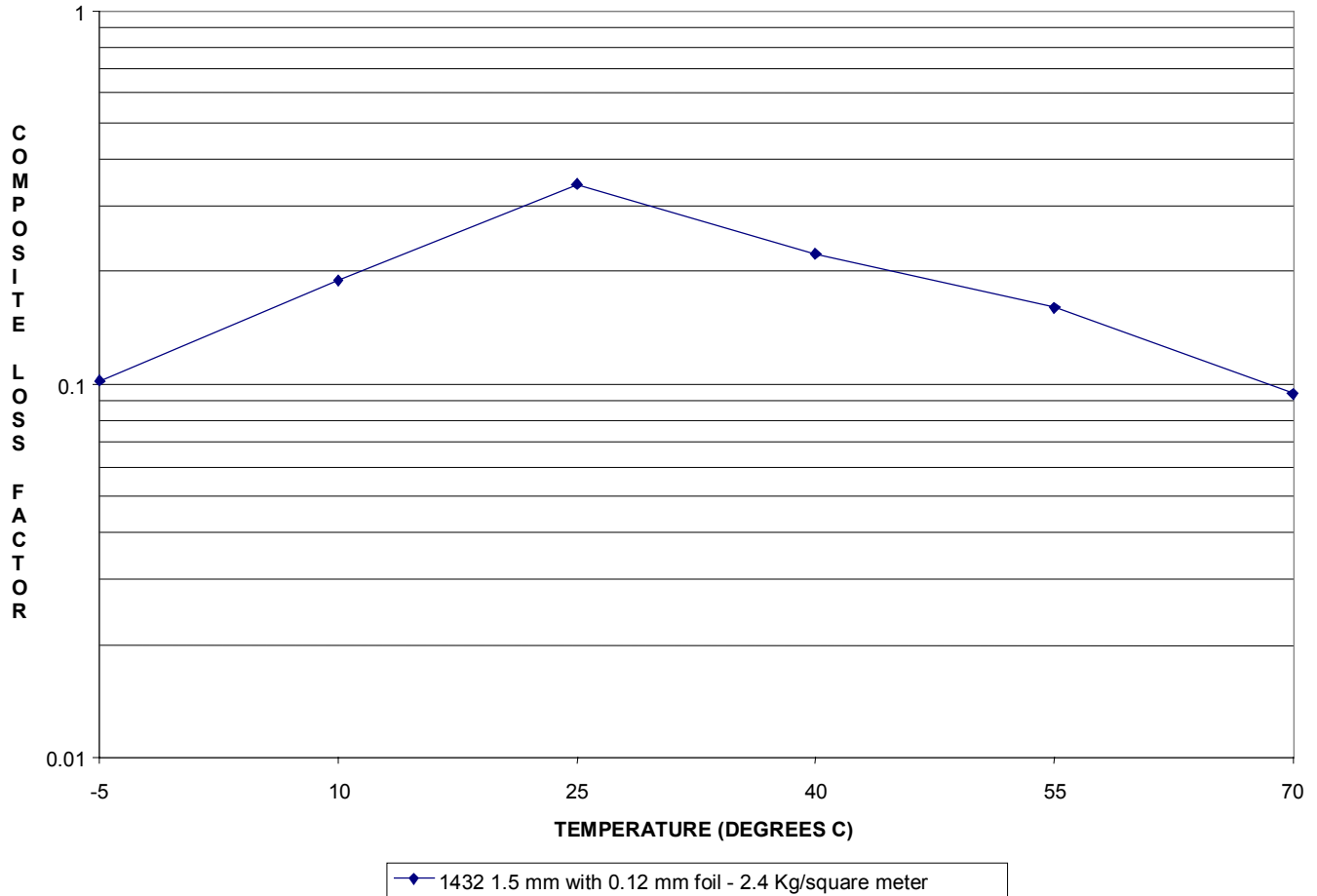
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DAMPING PROPERTIES:

Damping is tested per SAE J1637 (Oberst) and is reported as Composite Loss Factor (η_c) interpolated to 200 Hz. Typical performance for Eco Damp is represented below. Test data on other types of bars are available.

Oberst Data



TEMPERATURE RESISTANCE: Eco Damp will withstand a bake of 1 hour at 200°C with no deformation, sag, or flow when baked in horizontal, vertical or inverted positions.

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PEEL STRENGTH: Tested in 90° peel at a crosshead speed of 300mm. per minute on a 25mm. wide test specimen. Average load in Newtons is reported.

PEEL STRENGTH
(N per 25mm. width)

Substrate	Oily Cold Rolled Steel	Oily Galvanized Steel	E-Coat (ED-11)
After 2 hours	(1) 38	(1) 36	(2) 60
Heat Aged: 2 Weeks @ 70°C	40	40	66
Salt Spray: 2 Weeks	36	33	62
Humidity: 2 Weeks 100%/38°C	42	41	54
Environmental Cycle: 5 cycles of 17 Hours at -30°C 70 Hours at 70°C 24 Hours in Salt Spray 7 Hours at -30°C 17 Hours in Salt Spray 7 Hours at 70°C 24 Hours in Salt Spray	41	31	52

Note: (1) Baked per automotive paint bake schedule
(2) Unbaked - E-coat

COLD FLEXIBILITY: Can be bent around 25mm. mandrel at -30°C with no cracking or loss of adhesion.

FLAMMABILITY: Tested per FMVSS 302, Eco Damp is self-extinguishing and meets all aspects of the standard.

SAFETY: **Soundown's** Eco damp is not considered a hazardous material. Care should be used in handling to avoid cuts from the foil. Gloves are recommended. The Material Safety Data Sheet should be read and understood before using this product.

SOUNDOWN CORPORATION

16 Broadway
Salem, MA 01970

Tel: +1 978-745-7000 Fax: +1 978 745-0900
Email: Sales@soundown.com
www.soundown.com