



Description: POLYDAMP® V0 Damping Sheet is a flexible extensional damping material available in sheets and custom die-cut parts. It is ideal for controlling vibration and noise in products whose surfaces are at or near resonance during their normal operating cycle, such as electrical appliances, medical and dental equipment, office and electronic data processing equipment, industrial, construction, over and off-highway transportation vehicles.

Important Features:

- *Maintains maximum damping over a broad frequency range, at room temperature 21°C (70°F) and useful damping from 10°C to 50°C (50°F to 120°F)
- *Flexible, easy to fabricate and apply.
- *Meets flammability requirements of UL 94 V-0, ASTM E84 Flame 25 max, FAR 25.853(b), and MVSS-302.
- *Resistant to aqueous solutions, petro-chemical products, and common industrial fluids.
- *Available in composite form with acoustic quality foams.
- *Supplied with "Peel and Stick" pressure sensitive adhesive.

Typical Characteristics:

Chemical Type:	Filled vinyl copolymer
Color:	Dark Gray
Size, mm (in.):	Standard 610 (24) by 1372 (54), & 1372 (54) by 1829 (72)
Thicknesses, mm (in):	Standard 1.3 (0.050); Optional: 0.9 (0.035), 2.9 (0.115)
Weight @ .050", kg/m ² (lb/ft. ²):	1.95 (0.40)
Tensile N/M ² (lb/ft. ²):	2.7 X 10.6 (400), per ASTM D 638
Service Temperature Range:	Damping Performance - 0°C (32°F) to 82°C (180°F) Upper Temperature Limit: 100°C (212°F) (material begins to soften at 93°C (200°F))
Flame Resistance*:	Meets UL component classification 94 V-0, ASTM E84 Flame Spread 25, FAR 25.853(b) Vertical Flame Test, and MVSS-302.

Chemical Resistance:

Percent change in weight after 3 weeks immersion (of 1" x 2" x 0.050 samples) at 22°C (72°F) in the following fluids: Tap Water, 10% soap solution, 10% common salt, 5% NaOH, ethylene glycol, motor oil SAE-30, hydraulic oil (Mobile) less than +2.0%, 7% ammonia + 5.0, Isopropanol - 4.1, gasoline - 8.6, Toluene -15.7

08/24

HEALTH & SAFETY DISCLAIMER:

Polymer Technologies provides application and technical guidance on acoustical and thermal uses for its products, supporting customer projects as requested. Polymer conducts acoustical, thermal, and physical property testing either in house or via independent laboratories, when required.
Polymer Technologies neither processes chemicals nor has chemicals expertise, and rather relies on its suppliers for technical information relating to formulations and resistance of materials to chemical or environmental exposures. Polymer Technologies requires its customers to evaluate materials supplied for their specific applications and application environments to confirm compliance with all health and safety regulations.
Specifications subject to change without notice. Check with factory for latest revisions. The Federal Trade Commission considers no existing test methods or standards regarding flammability as accurate indicators of the performance of cellular plastic materials under actual fire conditions. Results of existing test methods, such as UL-94, MVSS-302, SAE J-369, and FAR 25.853 are intended only as measurements of the performance of such materials under specific controlled test conditions. Any flammability ratings shown are not intended to reflect hazards presented by these materials under actual fire conditions. The information contained herein is based on laboratory test data developed for PTI and is believed to be reliable, but its accuracy or completeness is not guaranteed. The buyer must test any product to determine the suitability for his specific application before use. PTI DISCLAIMS ANY RESPONSIBILITY FOR: 1) WARRANTIES OF FITNESS AND PURPOSE, 2) VERBAL RECOMMENDATIONS, 3) CONSEQUENTIAL DAMAGES FROM USE AND 4) VIOLATION OF ANY PATENTS OF TRADEMARKS HELD BY OTHERS.

Electrical Resistance: Volume Resistivity: 4.0×10^{13} Ohm/cm per ASTM D 257
Surface Resistivity: 8.0×10^{14} Ohm per ASTM D 257

Damping Properties:

TEST:

Composite loss factor for 0.050" thick EDPVO on various thicknesses of steel at 200 Hz, measured according to ASTM E-756.

LOSS FACTOR AT TEMPERATURE DEGREE F

Steel Thickness	<u>0</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>90</u>	<u>120</u>
.0478"	.042	.085	.087	.07	.038	.016
.0359"	.055	.13	.14	.11	.055	.021
.0299"	.065	.17	.19	.165	.075	.029

TEST:

Composite Loss Factor for 0.115" thick EDPVO on various thicknesses of steel at 200 Hz, measured according to ASTM E-756.

LOSS FACTOR AT TEMPERATURE DEGREE F

Steel Thickness	<u>0</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>90</u>	<u>120</u>
.1046"	.17	.19	.15	.11	.038	.012
.0747"	.14	.20	.18	.14	.052	.018
.0598"	.11	.21	.20	.17	.069	.023

HEALTH & SAFETY DISCLAIMER:

Polymer Technologies provides application and technical guidance on acoustical and thermal uses for its products, supporting customer projects as requested. Polymer conducts acoustical, thermal, and physical property testing either in house or via independent laboratories, when required.

Polymer Technologies neither processes chemicals nor has chemicals expertise, and rather relies on its suppliers for technical information relating to formulations and resistance of materials to chemical or environmental exposures. Polymer Technologies requires its customers to evaluate materials supplied for their specific applications and application environments to confirm compliance with all health and safety regulations.

Specifications subject to change without notice. Check with factory for latest revisions. The Federal Trade Commission considers no existing test methods or standards regarding flammability as accurate indicators of the performance of cellular plastic materials under actual fire conditions. Results of existing test methods, such as UL-94, MVSS-302, SAE J-369, and FAR 25.853 are intended only as measurements of the performance of such materials under specific controlled test conditions. Any flammability ratings shown are not intended to reflect hazards presented by these materials under actual fire conditions. The information contained herein is based on laboratory test data developed for PTI and is believed to be reliable, but its accuracy or completeness is not guaranteed. The buyer must test any product to determine the suitability for his specific application before use. PTI DISCLAIMS ANY RESPONSIBILITY FOR: 1) WARRANTIES OF FITNESS AND PURPOSE, 2) VERBAL RECOMMENDATIONS, 3) CONSEQUENTIAL DAMAGES FROM USE AND 4) VIOLATION OF ANY PATENTS OR TRADEMARKS HELD BY OTHERS.