

DECIDAMP® SP500

water-based vibration damping compound for premium applications

Decidamp® is a fast drying, water-based viscoelastic vibration damping compound.

Optimised to suit transport and industrial applications, the advanced formula was developed for acoustic improvement of structures that are exposed to vibration and impact sound. It is well suited to seal and protect the underbody of trains.

Decidamp® damping compound is a lightweight, non-hazardous structural damping material that is suitable for interior and exterior use with an easy application by simply spraying, rolling or trowelling onto surfaces. Once dry, the cured film is chip resistant and exhibits low combustibility, it effectively absorbs and dissipates vibrational energy from the flexural stress of the base structure and reduces panel coincidence dip and resonance effects.

An advanced extensional damping compound, it is suitable for application to structures (fibreglass, aluminium, and steel, including stainless steel) where sound damping is required. Compliance with the latest international fire rail regulations, such as EN 45545, makes Decidamp® SP500 the ideal choice for transport applications.



applications

- Rail carriages, body panels, underbody, locomotive, cabin walls and roofing, shells and flooring
- Machinery or industrial enclosures
- HVAC applications, plant rooms, substations
- Automotive, trucks and bus underbodies
- Exit ways, smoking areas, stairwells
- Metal floors, deck roofing, wall cladding

SPECIFICATIONS

Colour	Grey (standard colour) Other colours available depending on MOQ
Available	Pail: 20 kg, 5 gal
	Drum: 220 kg, 55 gal

features

- Compliance with EN 45545 - designed for sealing and protection in transport applications
- Advanced, non-sag formulation
- Excellent adhesion to fibreglass, aluminium, and steel - including stainless steel
- Water-based
- Suitable for outdoor exposure
- Reduces vibrational structural wear/tear
- Reduce noise and dynamic stress
- Excellent flame resistance, ignition retardant
- Broad temperature and frequency range
- Ideal for weight sensitive applications - lightweight
- High-chip resistance

PRODUCT SPECIFICATIONS

Colour	UOM	Weight	Service temp range	pH	Chemical resistance			
Grey (Standard)	20 kg (5 gal) Pail	1.3 kg/m ² /mm DFT	-40 °C to 100 °C (-40 °F to 212 °F)	8	UV excellent	water very good	petrol good	diesel good
	220 kg (55 gal) Drum							

To achieve a desired dry film thickness (DFT), provision for material shrinkage of up to 15% on average should be included when applying wet coating.
When coating thickness requirement is not specified, general recommended coating thickness (dry film) is $\geq 1.0 \times T$ for steel, $\geq 0.5 \times T$ for aluminium, $\geq 0.3 \times T$ for FRP, where T = substrate thickness.
Other thicknesses may be installed to achieve desired damping performance.

Storage: Store between 10 °C to 45 °C (50 °F to 113 °F).
Shelf Life: 24 months from receiving goods (stored under recommended conditions).

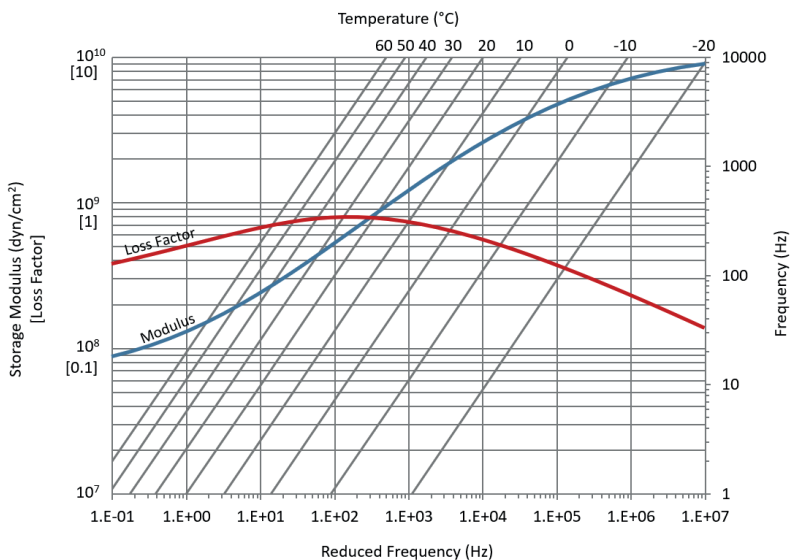
MATERIAL PROPERTIES

Test method	Property	Report	Results
EN 45545-2 (ISO 5658-2)	Spread of flame	362501	R1, R7, R8 HL3 (Complies for most interior surfaces and cavities in railway vehicles of operation categories 1, 2 & 3)
EN 45545-2 (ISO 5660-1 : 50kWm ⁻²)	Heat release rate by cone calorimeter	360850	
EN 45545-2 (ISO 5659-2 : 50kWm ⁻²)	Smoke generation (optical density)	360852	
EN 45545-2 (ISO9239-1)	Reaction to fire tests for flooring	043/17	R10, HL3* (Complies for flooring surfaces in Railway vehicles of operation categories 1, 2 & 3)
EN 45545 (ISO 5659-2 : 25kWm ⁻²)	Spread of flame		
EN 45545 (ISO 5660-1 : 25kWm ⁻²)	Smoke generation (optical density)		
ASTM D3170	Chipping resistance of coating	RES 154479-01	10A
Brookfield T-D spindle 1RPM	Viscosity	-	170 Pa.s to 300 Pa.s

*Material tested on 15 mm thick PIR board

ACOUSTIC PERFORMANCE

Decidamp SP500



Tested to ISO 6721-5:1996
Report Number: 12716AR4

How to read a reduced frequency nomogram:

1. Start by selecting the frequency (Hz) on the right-hand vertical axis.
2. Follow this value horizontally to the left to where the diagonal temperature isotherm intersects.
3. Draw a vertical line through the frequency and isotherm intersection, find the point where this line intersects the modulus and loss factor curves.
4. Draw horizontal lines from these points to the left-hand vertical axis to read the values.



ACOUSTIC DATA: SYSTEM LOSS FACTOR

Temperature (°C)	Application ratio of Decidamp® SP500 DFT on 3 mm steel (Product thickness: Substrate thickness)	
		1:1
-10		0.04
0		0.04
10		0.04
20		0.02
30		0.01

*Tested to ISO 6721-3:1994 | Report number: 31818BD
~200 Hz, 3 mm steel substrate, 3 mm application*