

## 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 UV, water and 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.

#### SPECIFICATIONS

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



### 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

### 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<br>(Standard) | 20 kg<br>(5 gal)<br>Pail   | 1.3 kg/m <sup>2</sup> /mm DFT | -40 °C to 100 °C<br>(-40 °F to 212 °F) | 8  | UV<br>excellent     | water<br>very good | petrol<br>good | diesel<br>good |
|                    | 220 kg<br>(55 gal)<br>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).

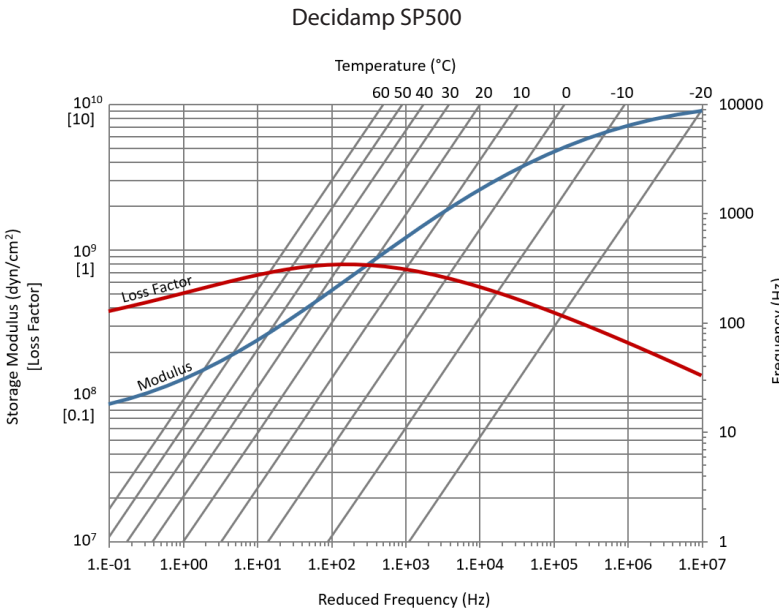
**Shelf Life:** 36 months from receiving goods (stored under recommended conditions).

## MATERIAL PROPERTIES

| Test method                                    | Property                                 | Report        | Results                                                                                                                         |
|------------------------------------------------|------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| EN 45545-2 (ISO 5658-2)                        | Spread of flame                          | 515943        | R1, R7, R8 HL3<br>(Complies for most interior surfaces<br>and cavities in railway vehicles of<br>operation categories 1, 2 & 3) |
| EN 45545-2 (ISO 5660-1 : 50kWm <sup>-2</sup> ) | Heat release rate by cone<br>calorimeter | 515941        |                                                                                                                                 |
| EN 45545-2 (ISO 5659-2 : 50kWm <sup>-2</sup> ) | Smoke generation<br>(optical density)    | 515942        |                                                                                                                                 |
| 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



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<br>(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

For further information  
and contact details,  
please visit our website  
[pyroteknc.com](http://pyroteknc.com)

Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights.  
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