



## DAMPASTE

Vibration Damping Paste



### FEATURED PROPERTIES

- Excellent vibration damping ratio. Damping Loss Factor is greater than 0,1.
- Even on vertical surfaces, easily enables the application.
- High strength and flexibility, due to long-lasting.
- Two version of the product for easy application purposes of Vertical and horizontal surfaces. Versions of the product depend on the surface.
- Typically 6 kg of Component A and 1 kg of component B are offered in 7 kg sets.
- Optimum pot life time for each type of application environment.
- Applied surface is suitable for sanding.

### APPLICATIONS

- Yachts and Mega-yachts
- Tug Boats
- Military Vessels
- Utility Boats
- Commercial Ships
- Railway Systems
- and on all mechanical noise of all surfaces...

### DESCRIPTION

Vibration damping technology is used on yachts, ships and other marine vehicles to reduce high levels of vibration into a lower level or to eliminate all. This is one effective way of passive noise control methods. Vibration damping materials are applied to the surface of the source of noise that spreads by vibration wave on the yachts and ships. This vibration waves are spreading unpredictable surfaces on boats to find any weak point to resonate and creates air-wave of noise.

**DAMPASTE**® vibration damping system formulated in 3 layer sandwich. The first layer is the ship or boat's application surface, The second layer is

**DAMPASTE**® viscoelastic layer of film and the third and final layer is the vibration plate (constraint layer). This vibration damping system works by lowering vibration and converting the energy of the source into very low heat, and the rest of the vibration energy travels the vibration plates by resonating and losing it's energy.

**DAMPASTE**® works excellent specifically on surfaces thicker than 6,0 mm for vibration damping. For example, on yachts' bare aluminum surface damping loss factor is 0,006 while using **DAMPASTE**® this coefficient raises up to 0,1.

## DESCRIPTION

**DAMPASTE**® viscoelastic damping has high damping coefficient. 0,1 damping factor means 20 dB of lowering noise in environment. Directly applicable to any surface such as metal, composite and plastic and

**DAMPASTE**® is resistant to oil, diesel, sea water; with an excellent adhesion quality to the surface. Depending on the application surface; a constraint layer (steel or aluminum vibration plates) is easily applied. Currently, over 100 yacht or vessel has

**DAMPASTE**® vibration damping system. In the beginning of building ship or yacht building, you can supply comfort by applying **DAMPASTE**®.



## INSTALLATION PRINCIPLES

### Pre-treatment of surface:

Aluminium and stainless steel to be painted with wash primer. Steel to be sand blasted or painted. Before use the **A** and **B** components shall be thoroughly mixed together. Observe that the pot life after mixing is about 30 minutes.

After mixing the **DAMPASTE**® may be trowelled out to specified thickness and the constraining metal sheet laid down in the wet layer. For vertical applications the constraining layer must be supported during the drying time.

### Installation:

**DAMPASTE**® Vibration damping system, should be applied under control of the manufacturer's noise control engineers, or shipyard's engineers in the implementation of places where it is necessary to dampen vibration and noise sources. The following information is to explain basic rules of

**DAMPASTE**® Vibration damping system application on all surfaces:

70 % of application surface should be covered by dampaste vibration damping system.

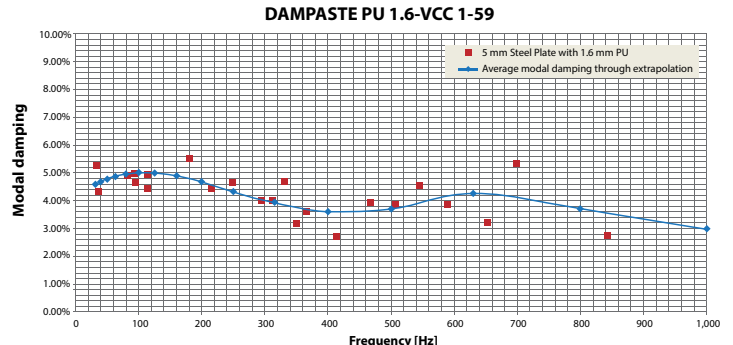
- No application on stiffeners and angled surfaces
- Application plates should be 3 cm away stiffeners or angled surfaces.
- Vibration plates (constraint layer) should not be smaller than 200X200mm sizes.
- No need to apply **DAMPASTE**® vibration damping system if Total area of the surface is less than 40 cm<sup>2</sup>
- Please apply only 1 vibration plate on 300X300 mm surfaces.
- No application on welded corners or surfaces.
- Do not use welding after application of **DAMPASTE**® Vibration System. If it's used, please apply the system again.

## TECHNICAL INFORMATION AND SERVICE

In addition to supply of this product Marinsu İzolasyon San. Ve Tic. Ltd. Şti. offers competitively - priced in the Turkey. Use of our service ensures that installation is performed to highest standards by tradesman fully experienced in the specialist skills of fitting acoustic materials correctly. For further details contact our technical team on +90 216 446 66 25 .

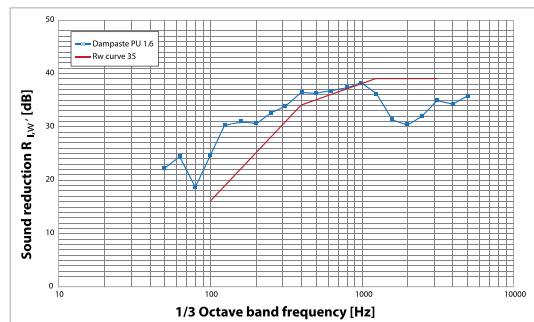
## MATERIAL CHARACTERISTICS

As it is seen from the Autoresponse graphics, the dampaste has at least %10 damping in all frequency domain. Besides, the time envelope has a great indication, how the dampaste damps the vibration plate rapidly compared with the reference metal plate.



Average modal damping through extrapolation

31,5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000
0.046	0.047	0.048	0.049	0.050	0.050	0.050	0.049	0.047	0.044	0.040	0.036	0.037	0.043	0.037	0.030



Frequency, f [Hz] 1/3 Octave Band

50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	
22,2	34,4	48,7	66,1	89,1	118,9	160,0	210,0	281,8	375,0	501,2	670,8	891,3	1188,8	1600,0	2100,0	2818,4	3750,0	5011,9	6707,8	8912,5	11887,8

Reduction, [dB]

