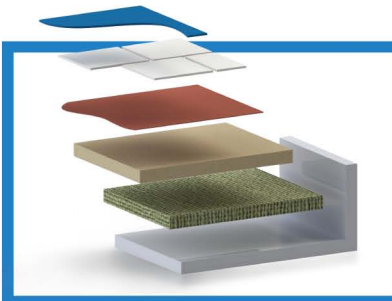


PIO-SHIP

PIO-SHIP DESIGN & SYSTEM INTEGRATE PTE LTD

PIO-SHIP

TECHNOLOGIES FROM CHINA'S LARGEST UNIVERSITY OF NAVAL
ARCHITECTURE AND OCEAN ENGINEERING



**CABIN ANTI-VIBRATION AND
ACOUSTIC INSULATION
SYSTEM**

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CABIN ANTI-VIBRATION AND ACOUSTIC INSULATION SYSTEM

We have developed a series product for ship cabin acoustic insulation, mainly including sound insulation wall panels, dampers, damping duct, floating flooring and lightweight damping flooring



1. deckhead
2. sound insulation wall panels
3. dampers
4. damping duct
5. floating flooring
6. lightweight damping flooring

DAMPING DUCT

The damping duct was designed by coating one layer or multi layers of damping paints on the surface of the duct, its high vibration consumption properties in the wide range of frequency are achieved through optimized mixture formula, it meets the requirements of reducing the vibration in the duct for the marine AC system.

Properties:

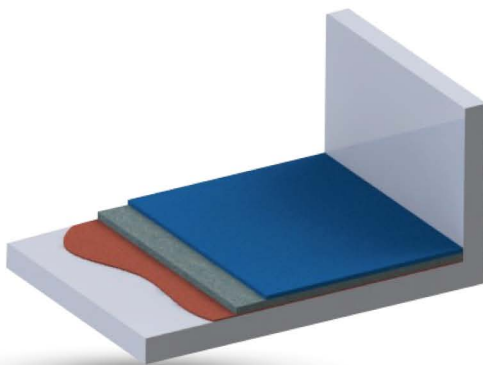
- high damping effect
- less air flow resistance
- take less space
- easy molding
- no additional packing required



LIGHTWEIGHT DAMPING FLOORING

Lightweight damping flooring, being different with previous floating structure flooring, is a lightweight structure integrating damping coated cover to obtain anti-vibration performance without increasing the weight of the vessel while the travelling comfort is balanced.

Light weight damping flooring is composed of base steel plate covered by damping paint, on which the AL foam is covered and finally with finishes.



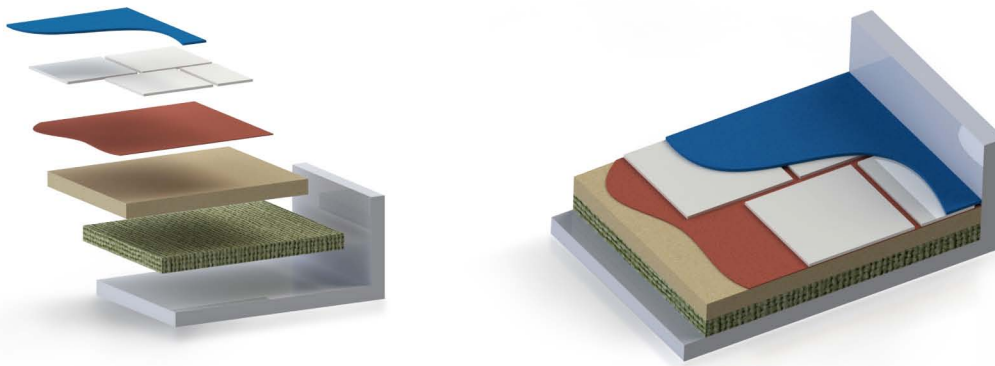
Technical advantages

- Low density & thin
- High anti-vibration & damping
- Excellent energy absorbing and anti-shocking
- Modular assembly

TYPE	HF-DL	SANDWICH MATERIAL
fireproof rate	B0	damping glue
weight	7.2Kg/m ²	AL foam
width	150mm (max)	SURFACE MATERIAL
length	900mm(max)	
thickness	15mm(customized)	AL
acoustic insulation	30dB(when thickness is 15mm)	
thermal conductivity	0.5W/mK	

FLOATING FLOORING

The floating flooring: the anti-vibration and heat insulation material as well as other elastomer will be directly paved on the base flooring to form a composite structure together with the bulkhead to achieve anti-vibration, noise reduction and acoustic insulation.



TYPE	HF-F	SANDWICH MATERIAL
fireproof rate	A-60	rock wool
weight	33.5Kg/m ²	SURFACE MATERIAL
width	450mm (max)	
length	1950mm(max)	steel plate: galvanized steel
thickness	62.5mm	
acoustic insulation	50dB	
thermal conductivity	0.77W/mK	

HMFLO floating flooring use the good quality high density rock wool as sandwich, covered with galvanized steel plate, deck covering can be used if necessary, Main advantages:

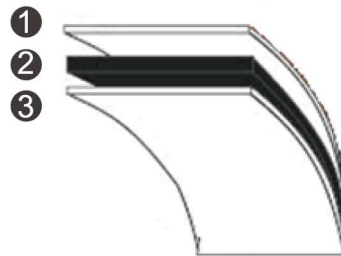
- higher fire proof rate, A-60
- excellent acoustic insulation, reduction of noise
- higher press bearing
- good flatness, no twisting or crinkles
- Easy to assembly & cutting

DAMPING RUBBER SHEET

SG damping rubber sheet is mainly composed of high damping modified rubber, which is produced by technique of polymer doped modification, featuring high damping, high temperature stability, high adhesion, high elongation, etc. The damping rubber sheet is effective in structural vibration and noise reduction by changing the mode of vibration and blocking the path of transmission.

Product Structure:

- (1) AL film (0.12mm)
- (2) modified rubber (1.5mm milk white)
- (3) release paper



PHYSICAL PROPERTIES

thickness	1.5 mm (± 0.10 mm)
width	100mm(± 0.5 mm)
length	320mm(± 15 mm)
density	1.5g/cm ³ (± 0.1 g/cm ³)
color	milk white
prolonging rate	430% (23°C humidity 50% 500mm/min)
Young's modulus	1.17 Mpa (23°C humidity 50% 300mm/min)

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