BN CHEMICAL BN-D5500

World's 1st Graphene contains Damping Layer
Visco Elastic Damping Layer & Floating Floor Damping Layer

Introduction

BN-D5500 was invented through R&D cooperation program with HHI(Hyundai Heavy Industries) and KAIST(Korea Advanced Institute of Science and Technology). This product reduces vibration, noise by using the excellent material of graphene, which is noted for its advanced properties.
BN-D5500 Visco Elastic Damping Layer dramatically reduces noise levels generated by vibration of the structure and designed with two component polyurethane compound for use in constrained layer application.

R&D cooperation program

Mechanism For Noise Reducton

As the deck flexes under vibration transmitted to it from engines or propellers, the visco elastic layer is placed in shear. The special property of a visco elastic material is that it does not recover at the same rate as which it is distorted, and energy from the vibration is therefore absorbed, leaving less to be radiated as noise. Its the biggest effect is due to the characteristics of graphene.


Marine

Heavy equipment

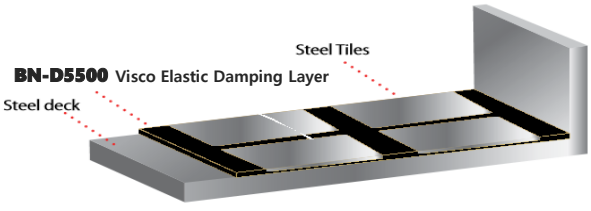

Automobile


Construction

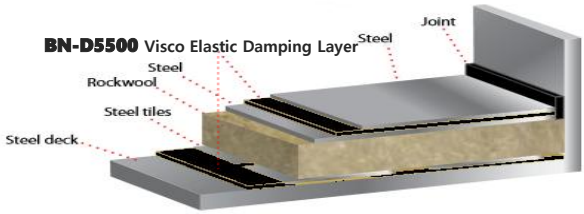
Features

1. Unique technology (Using Innovative new material, Graphene)
2. Noise reduction in low-frequency areas dramatically reduces
3. Excellent workability (Rake and Spray operations)

Noise reduction System



Visco-Elastic



Floating-Floor

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[Certificate of Approval]

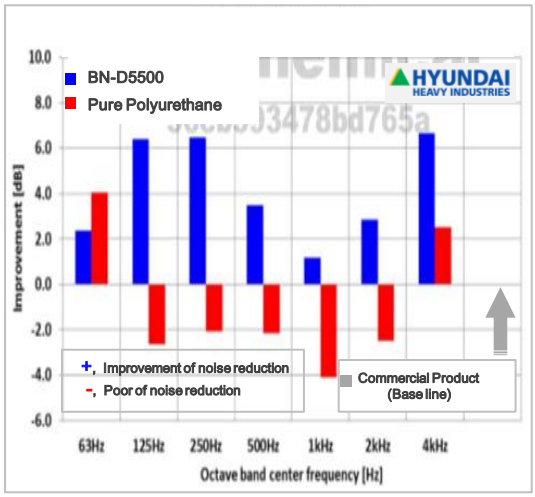


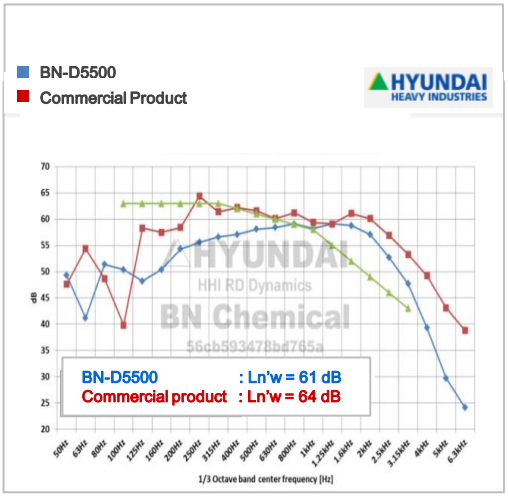


ABS
Lloyd's Register
DNV
FILK

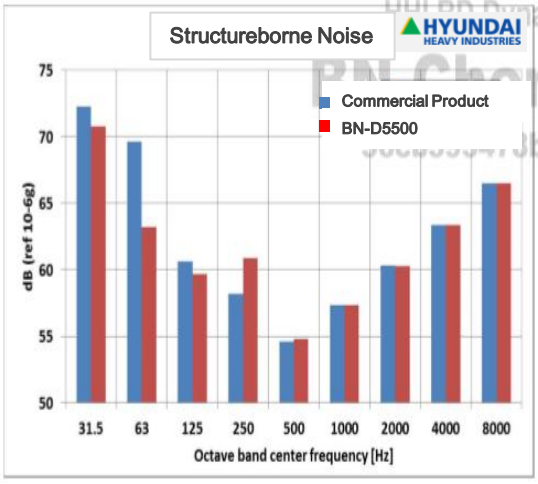
[Noise Reduction Report / Performance differences compared to commercial products]

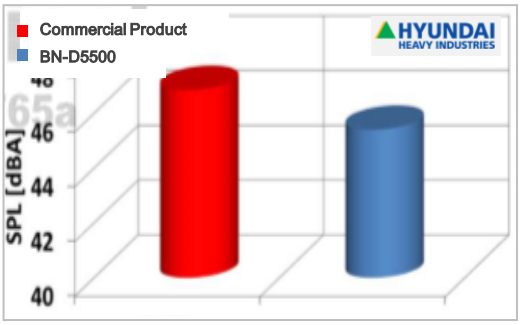
[Mooring Test]
/ Impact sound





[Voyage Test]
/ Structure &
Airborne Noise





	Commercial Product	BN-D5500
Airborne Noise (dBA)	46.9	45.4

※ Based on Verification of the performance of Hyundai Heavy Industries

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