PU-D20 Concrete System

Visco Elastic Deck Covering System

Product description

PU-D20 Concrete System is a method of noise control in ships, which acts by preventing vibration of the steel structure. The energy thus absorbed is therefore not available to be radiated as sound in the treated area or in other parts of the ship.

Minimum 1 mm PU-D20 Visco Elastic Damping Layer forms the filling of a sandwich construction between the steel of the deck and minimum 10 mm BH 3000 or BL 2000. 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. The bond between the visco elastic layer and the deck, and the bond between the visco elastic layer and the constraining layer is therefore of outmost importance.

Surface preparation

Before application of the PU-D20 ensure that the deck is clean and free from dust, grit, rust, grease or any other dirt. The deck surface must be ground free from weld spots and other lumps and a normal shop primer must be applied.
Aluminum has to be primed with a wash primer.

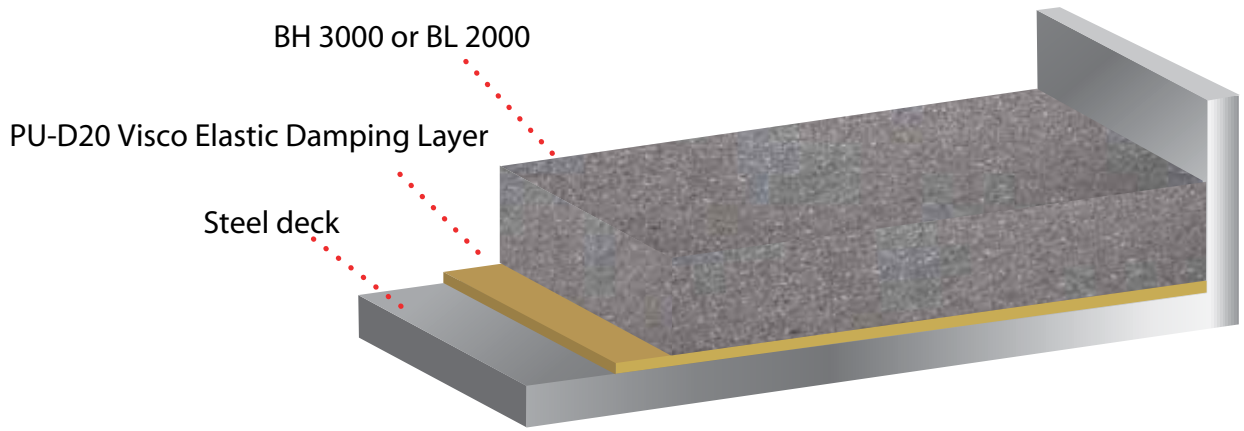
Application of PU-D20 Damping Layer

Before use, the PU-D20 component A and B must be thoroughly mixed together by using an electric mixer. Component B shall be poured into the component A can and then mixed. Measure up the deck area to be treated in smaller sections and trowel out the damping layer PU-D20 in the specified thickness.
After drying 2-6 hours the surface must be strewed with a thin layer of coarse sand particle size, like 0.4-0.8 mm, this to provide a good grip between the visco and the constraining layer. (The sand must not sink/disappear into the visco. The surface has to be rough, like sandpaper, to get a good grip for the constraining layer)
Allow the PU-D20 Damping Layer to dry over night, approx. 8 hours. The drying process may be assisted by a hot air fan to provide a comfortable well ventilated working climate of about 15-20°C. (Minumum temperature is +5°C). Apply constraining layer.

Application of constraining layer

BH 3000: Mix one bag of BH 3000 (25 kg) with approx. 4,5-5 litres of clean, cold water and stir vigorously to a smooth, easy flowing mortar. The compound is ready for use and to be applied in the required thickness.

BL 2000: Mix one bag of BL 2000 (18 kg) with approx. 7,4-7,5 litres of clean, cold water and stir vigorously to a smooth, easy flowing mortar. The compound is ready for use and to be applied in the required thickness.



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- a Cruise in Quality

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Technical description - PU-D20 Visco Elastic Damping Layer

Density	Approx. 1,35 kg/mm/m^2
Solid content	100%
Solvent	Solvent free
Colour	Brownish
Operating temperature	-20°C to approx. + 80°C
Application temperature	Minimum + 5°C
Pot life	Approx. 30 minutes at 20°C
Curring time	Approx. 8 hous. Maximum acoustical performance after 5 days
Flammability	Not flammable

Technical description - Constraining layer

Density	BH 3000 approx. 1,6 kg/mm/m^2
	BL 2000 approx. 0,9 kg/mm/m^2
Pot life	BH 3000 approx. 15-20 minutes at 20°C and 85% RH
	BL 2000 approx. 30 minutes at 20°C and 85% RH
Curring time	BH 3000 approx. 18-24 hours at 20°C (Depending on thickness)
	BL 2000 approx. 24-36 hours at 20°C (Depending on thickness)

Packaging

- 18,4 kg set - PU-D20 Visco Elastic Damping Layer
- 25 kg bag - BH 3000 Self-levelling Compound
- 18 kg bag - BL 2000 Self-levelling Compound
- 25 kg bag - Sprinkle Sand 0.4-0.8 mm (Can be purchased locally)

Shelf-life

Minimum 24 months for PU-D20 Visco Elastic Damping Layer. Unopened packaging. Storrage not below +5°C
Minimum 12 months in unopened packaging for BH 3000 and BL 2000.
No limit for Sprinkle Sand 0.4-0.8 mm.

Storage

In dry conditions, do not expose to moisture and freezing temperature.

For additional technical information, please contact our technical department.

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