DaeHyup

Marine & Offshore Deck
Covering and Spray Insulation

DAEHYUP Billytex

BILLYTEX DPU-BF FFA

A60 Class Floating Floor System

DAEHYUP TECH

Production description

BILLYTEX DPU-BF FFA(A60 Class Floating Floor) is an advanced fire-insulating sound & vibration damping floor structure with great sound reduction and vibration damping performances as well as A60 class fire protection performance . It is also satisfied with IMO 2010 FTP code.

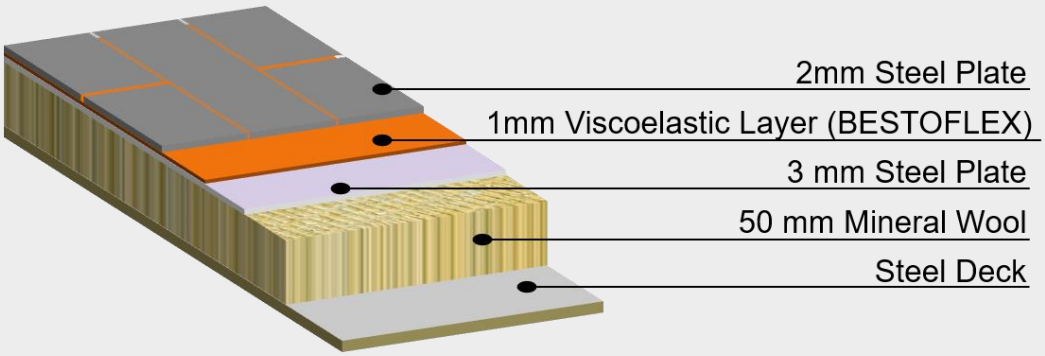
BILLYTEX deck compositions (BX-B, BX-BN, BX-LW, etc.) can be applied on floating floor.

Characteristics

- Excellent sound reduction properties
- Excellent flexibility and elasticity
- A60 fire class
- Non-combustibility

Application

- Accommodation decks in ships and offshore units where reduce impact & structure borne noise as well as A60 class deck



Product	Materials	Quantity (kg/m^2)	Packing unit	Standard thickness
BESTOFLEX (Viscoelastic)	Resin / Hardener	1.3	8.0 (1.6) / 1.6 (0.6) Kg	1.0 mm
Steel plate	Steel	-	-	2 / 3 mm
Insulation Board	Mineral wool	7.0	4 SH/pack	50Tx1000x600 mm/SH

Note ( ) : Small packing unit.

Certificates

Classification society	CE (MED)	USCG	DNV-GL	BV	LR	ABS	KR	NK	RS
BILLYTEX DPU-BF FFA	O	O	O	-	O	O	O	-	-

Installation Steps

❖ Surface Preparation

Deck surfaces should be free of dust, moisture, oil or grease and be primed with zinc silicate shop primer or equivalent finish. Be sure to check deck floor conditions (fairing, wavering, deformation, etc.) during cleaning and completely sealed holes and gaps below wall panel.

❖ Arrangement of Steel Plate

- Arrange 2㎜ Steel Plate (1,000x1,000mm or 2,000mm) in order from the starting point, as designed per the structural drawing of each area.
- The Steel Plates shall be cut to fit with edges of the area and be spaced out from interfering structures such as supports, angles and pipes at about 10㎜ (±5㎜).
- Number off and mark installing direction of each steel plate prepared for the installing area.

❖ Installation of Mineral Wool

- Mineral Wool boards are closely installed each other in zigzag paten.
- Install steel channels under the entrance point of a door as a load-bearing member and those steel channels should be coated with viscoelastic compound at about 0.5㎜ thickness.

❖ Installation of 3㎜ Steel Plate + 1.5㎜ Steel Strip

- Install 1.5㎜ Steel Strip around the edges of the room first.
- Then, installation of 3㎜ steel Plate is started from the corner of the room as soon as 1.5㎜ Steel Strip is installed to form a complete seat to accommodate individual 3㎜ Plates in each section. Repeat this process all over the area.

❖ Installation of Viscoelastic Compound + 2㎜ Steel Plate

- Pour entire contents of the can containing 'Hardener' into the can containing 'Base' and blend them thoroughly by electric mixer for 2~3 minutes.
- Spread the viscoelastic mixture evenly at 1 ㎜ thickness with a plastic or steel scratcher trowel by the amount to which prepared 2㎜ Steel Plates are installable at a time, and then install 2㎜ Steel Plate on the viscoelastic layer immediately.
- Place objects upon the installed Steel Plates, such as bucket and sandbag which can give sufficient load (15~20㎏) upon the installed area.
- Use securing screw to fixate 3㎜ Steel Plate, Viscoelastic layer and 2㎜ Steel Pl ate together.

❖ Installation suggestions

- Mixed viscoelastic shall be used within approx. 15 minutes.
- Installation shall be done in +5℃ above (Room temperature).
- Keep the minimum distance between each steel plate.
- Do not use wet or damaged Miner al Wool boards.
- Remove viscoelastic compound leaked out of the Steel Plate layer f or levelling of the surface.
- Installed viscoelastic shall not be exposed to moisture or to the below temperature +5℃ until curing is completed.

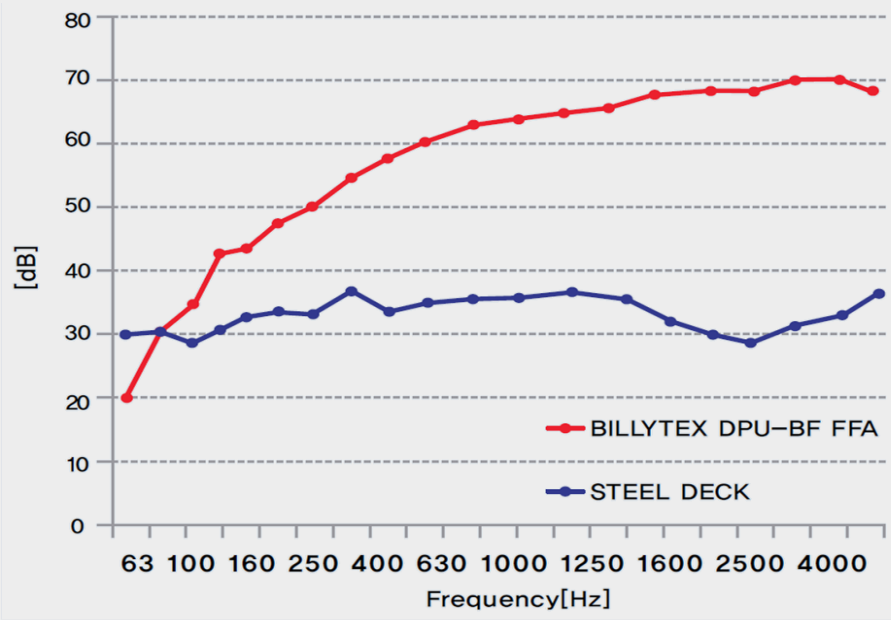
❖ Stock

1) The stocks shall be stored in a dry place where contact with direct sunlight and water can be avoided. Viscoelastic compounds shall not be used after shelf-life.
2) 12 months of use-by date under ordinary condition is guar anteed.

Technical data

Product	Physical property	Result	Remarks
BESTOFLEX (Viscoelastic)	Basic	Polyurethane	
	Color	Various color	
	Density (g/cm³)	Approx. 1.3	
	Pot life (minutes)	Approx. 15	at 25°C
	Curing time (hours)	Approx. 8~10	at 25°C
	Ambient temperature	+5°C~+30°C	
	Solid content	100	
	Solvent	Solvent free	
	Fire resistance	Non-combustible	
Insulation Board	Basic	Mineral wool	
	Color	Dark yellow	
	Density (g/cm³)	Approx. 140	
	Fire resistance	Non-combustible	
	Thermal conductivity (W/m-k)	0.035	

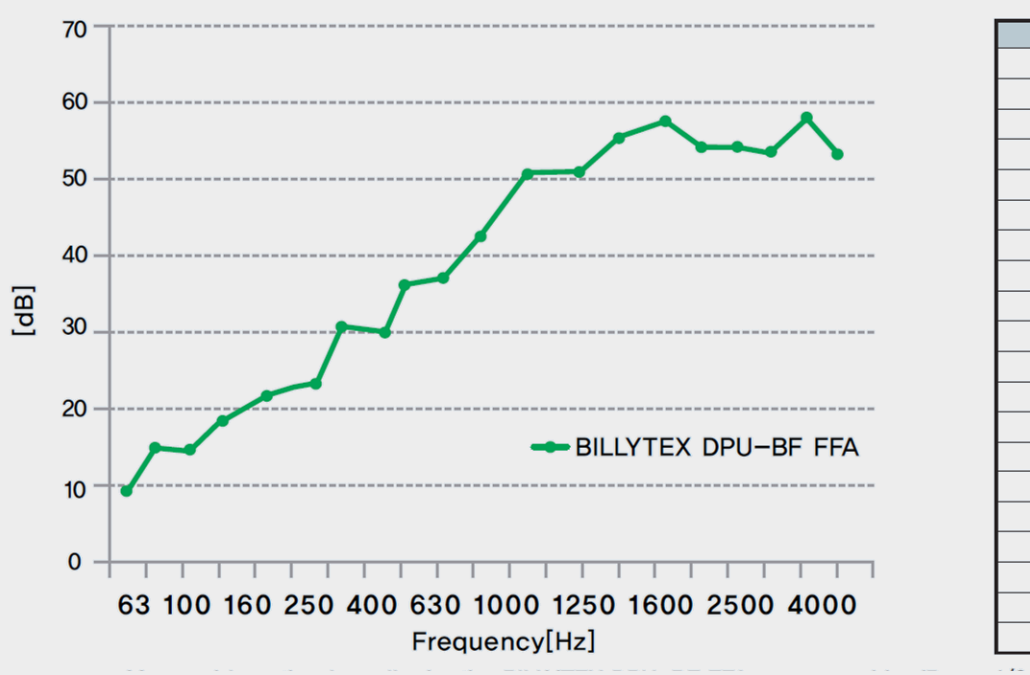
Airbrone Sound Insulation Performance



HZ	dB
63	20.4
80	29.9
100	34.6
125	43.2
160	44.3
200	48.1
250	50.3
315	55.2
400	56.9
500	59.1
630	61.1
800	61.7
1000	63.6
1250	64.6
1600	64.9
2000	67.5
2500	68.3
3150	70.1
4000	70.4
5000	68.3
Rw	61

Measured Sound Reduction Index for the BILLYTEX DPU-BF DC according to ISO 10140-2 and ISO 717-1.

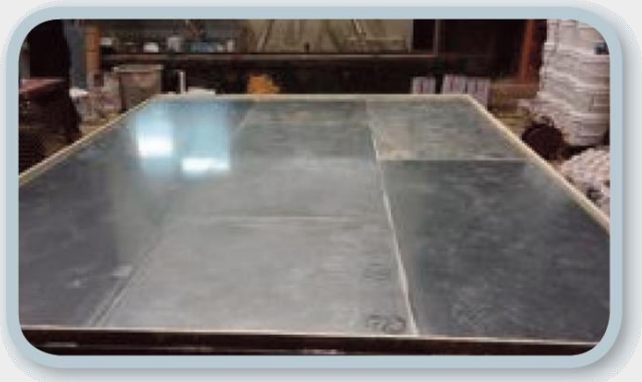
Insertion Loss in Velocity Level (ILv)



HZ	dB
63	9.2
80	15.7
100	15.5
125	18.6
160	21.4
200	23.3
250	31.0
315	30.0
400	36.2
500	36.9
630	43.7
800	51.1
1000	51.3
1250	55.0
1600	57.2
2000	54.2
2500	54.2
3150	53.2
4000	57.3
5000	53.2

Measured Insertion Loss ILv for the BILLYTEX DPU-BF DC, expressed in dB per 1/3-octave frequency band. The insertion loss ILv refers to the mean velocity level in dB re 10^{-9} m/s.

Sound Tests carried out by Fir e Insurers Laboratories of Korea (FILK)



DAEHYUP TECH CO., Ltd. provides comprehensive marine deck covering products such as powder, latex, epoxy and urethane types.

We have been developing our products more than three decades through various experiences in manufacturing and installations.

The quality of our products is assured by ISO 9001:2000 and approved by major authorities including leading classification societies in compliance with the IMO rules.

DaeHyup

DAEHYUP TECH CO., LTD
DAEHYUP SPRAY CO., LTD
88, Janggiteo 2-gil, Ungchon-myeon,
Ulju-gun, Ulsan, Republic of Korea
TEL +82-52-277-9110~3
FAX +82-52-277-9114~5
E-mail sales@dae-hyup.com
Website www.dae-hyup.com