Marinsu
İZOLASYON SANAYİ TİC. LTD. ŞTİ.

SOUNDECK
Sound Barrier Panel

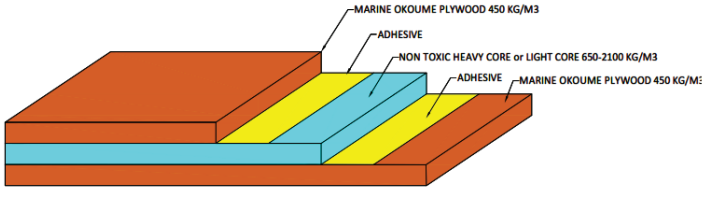
Exova Warringtonfire
EN 45545-2

FEATURES

- **Especially low-frequency noise reduction and a constant increase in performance as the frequency increases, with no dips within the speech range.**
- **As a floor or wall panel..**
- **High strength and flexibility**
- **Approved by Exova Warrington Fire according to**
- **EN 45545-2:2013 (R10) HL3.**
  Soundeck is producing from 150 kg / m³ to 2300 kg / m³ of density core material with long-lasting adhesive system between first class okume, tetra, birch or exotic RINA approved plywood marine plywood.
- **As a standard 1250 mm and 2500 mm in size 12, 16, 20, 22 mm in thickness is produced. Other thicknesses are optional.**
- **It has no toxic gas in contents.**
- **CNC processing machines, etc. can be applied easily.**
- **The surface is suitable for sanding and polishing.**

DESCRIPTION

SOUNDECK® is a laminated acoustic panel, which provides higher noise reduction than commonly used materials such as plywood or composite panels. With two layers marine plywood(generally use okoume ply) laminated each side of a constrained acoustic layers (Soundeck Heavy Mass Core ,ACM17 and ACM 15). **SOUNDECK®** heavy mass core material is bitumen free and non toxic. ACM17 and ACM15 rubbercork core materials are produced by AMORIM Cork Composites. **SOUNDECK®** behaves as a balanced constrained layer, significantly reducing noise transmission through decks, bulkheads, floors and partitions, while increasing guest privacy between cabins.



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APPLICATIONS

Industrial
Compressor rooms, pump-rooms with air conditioning units and elevator motors, the noise is a common problem in all areas used for sound insulation and excellent acoustic efficiency is obtained.

Buildings
Noise transmission between floors in the building can be used as the floor panel to provide sound insulation between rooms used as the wall panel. Optionally, a side of the plasterboard panels, so that MgO panel betopanel also produced and is easier to use.

Railcars
Trains, light rail, tram and subway cars used as the base floor wood. Rails and vibration-induced noise does not allow the vehicle to pass into.

Yachts and Boats & Watercraft
Floating floor around the floor and walls of the engine room is used for noise isolating. In addition, using the inter-departmental sound insulation in the cabin compartment is provided. Excellent acoustics and noise suppression feature and sea vehicles in order to increase their comfort.

TECHNICAL SPECIFICATIONS

MODEL	THICKSNESS, mm	WEIGHT, kg/m2
4:4:4 HEAVY	12	12
4:4:4 ACM 17	12	7,9
4:4:4 ACM 15	12	6,6
6:4:6 HEAVY	16	14
6:4:6 ACM 17	16	9,9
6:6:6 HEAVY	18	18
6:6:6 ACM 17	18	11,9
8:6:8 HEAVY	22	21
8:6:8 ACM 17	22	13,9

Estimated values, considering a 6/4/6 sandwich panel using plywood of 500 kg/m^3 density

Thermal Conductivity
The measured (only 6:4:6 ACM 17 model) insulation value of **SOUNDECK**® according to TS EN 12667 averages 0,163 KW/mK based on the thickness installed.

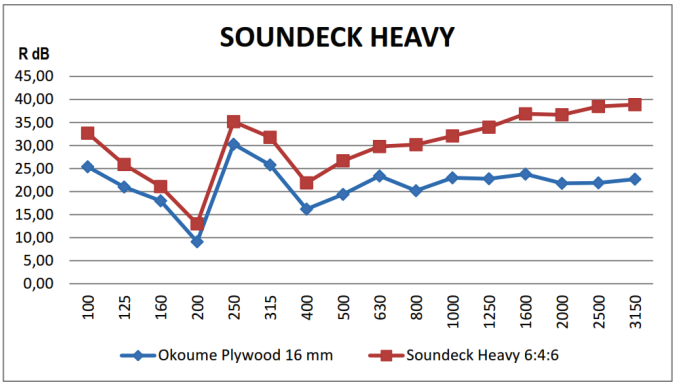
Bending Strenght
The measured (only 6:4:6 HEAVY model) bending strenght of **SOUNDECK**® according to TS EN 310 avareges 31,7 MPa.

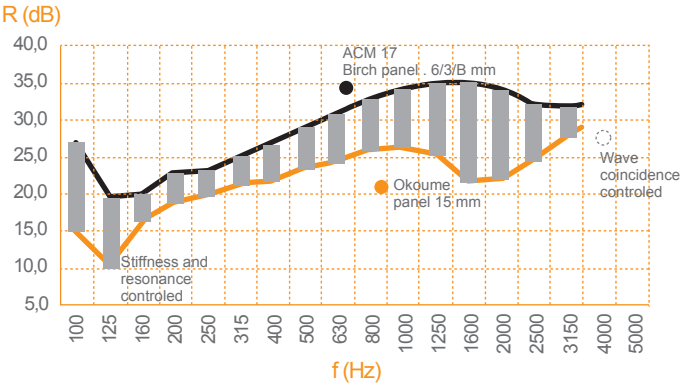
Fire-resistance
SOUNDECK® panels meets the demands of EN 45545:2013 (R10) HL3 level.
Also the plywoods of **SOUNDECK**® panels meets of EN 13501-1:2007+A1:2009 rules.

Adhesive
SOUNDECK® is bonded waterproof adhesive. The used gluings are classified to low issue of formaldehyde (Class E1 in according to EN 1084). The constancy against cold and hot water has been checked under test conditions.
SOUNDECK® and the used plywood are glued weatherproof. Also used PU adhesive for cold press applications.

SOUND ABSORBTION SPECIFICATIONS

The sound-absorption-measure Rw is as certained according to ISO 140-4. The measurement includes a range of frequency of 100 to 5000 Hz which is nearly corresponding to the perceptible spectrum of human beings. For the ascertainment of the valued sound-absorbency measure Rw the ISO 717-1 considers values including 3150 Hz.
The preferred thickness of boards for railway and commercial vehicles industry varies between 16 and 22 mm. The valued sound-absorption-measure Rw for **SOUNDECK**® with effective thickness of 16 and 22 mm is 40 dB.
Used in conjunction with Regufoam or Sylomer, as a floating interior,the use of **SOUNDECK**® significantly lowers noise and vibration levels within the vessel interior in the most weight efficient manner.
The acoustically effective heavy or rubber cork centre absorbs vibration energy and prevents that **SOUNDECK**® reflects air sonic.





Postahane Mah. Sağlık Sok. No:26 34940 Tuzla-İSTANBUL/TÜRKİYE
TEL: +90 216 446 66 25

info@marinsu.com.tr

www.marinsu.com.tr