SUBDUE® L

lightweight noise barrier

Subdue® L is a lightweight multilayered noise barrier panel. The panels are constructed from two outer layers of lightweight marine grade hardwood, compliant to BS 1088, with a range of inner cores comprising cork, cork/rubber or crumbed rubber. Subdue L was specially developed to reduce noise transmission and structural vibration in interior applications such as lightweight interior wall, ceiling and floor construction. The product is suited for low privacy areas and can be used in commercial, rail, and marine constructions.

The 'L' category of 'Subdue' panels includes inner cores with densities up to 1000 kg/m^3. It is available in nominal thicknesses of 14 and 24 mm. Additional thicknesses in between can be produced depending on customer specification.

Coincidence dip is a common phenomenon in lightweight panels, that adversely impacts the sound transmission loss performance in materials such as timber, plywood, sheet metal, low density rigid foams and hollow core walls. Subdue's unique multilayered composition with its inner core layer, reduces the impact of the coincidence dip, thereby maintaining the performance of the panel. Subdue L works by reflecting, absorbing and damping the vibration and transmission of sound through walls and floors, reducing the noise generated from sources such as mechanical equipment, engines and electronic audio devices.

Pyrotek endorses forest sustainability and the preservation of natural environment. We procure highest quality materials from suppliers who hold FSC Certification (Forest Stewardship Council) and PEFC (Programme for the Endorsement of Forestry Certification) amongst other certification programmes.

Subdue lightweight marine grade hardwood is tested to AS/NZS 2098.11 and classifies as 'E-0' for low formaldehyde emission.

SPECIFICATIONS

Core Material	Cork, Rubber
Available	Standard sheet size: 2440 mm x 1220 mm untrimmed* 2400 mm x 1200 mm trimmed Okoume plywood (standard), other species available on request depending on MOQ

**Untrimmed means some layers may overhang the usable width*

applications

- Used to construct floor, partition walls and lining panels
- Particularly suited in weight sensitive applications
- Low privacy areas such as office partitions and staff quarters
- Extensively specified for interior marine construction e.g. bulkheads, cabin partitions, floating floors
- Flooring systems in the rail industry and motor coach industry to reduce road and track noise
- Fabrication of acoustic doors
- Used in conjunction with an isolation mount to create floating wall, floor and ceiling systems

features

- Available in a range of lightweight marine grade plywood, tested to BS 1088
- Tested for low formaldehyde emission
- Simple to saw-cut, fabricate and install using conventional woodworking tools
- Tested and proven to have superior damping and sound attenuation properties over standard plywood and similar
- Thin and lightweight panels whilst still possessing high noise reduction properties
- Bonded using water resistant glues, Weather and Boil Proof (WBP) tested, according to BS 1088
- Available in preformed cut panels and varying constructions (offering weight savings) to suit all designs
- Subdue L: product category with core layer densities up to 1000 kg/m^3

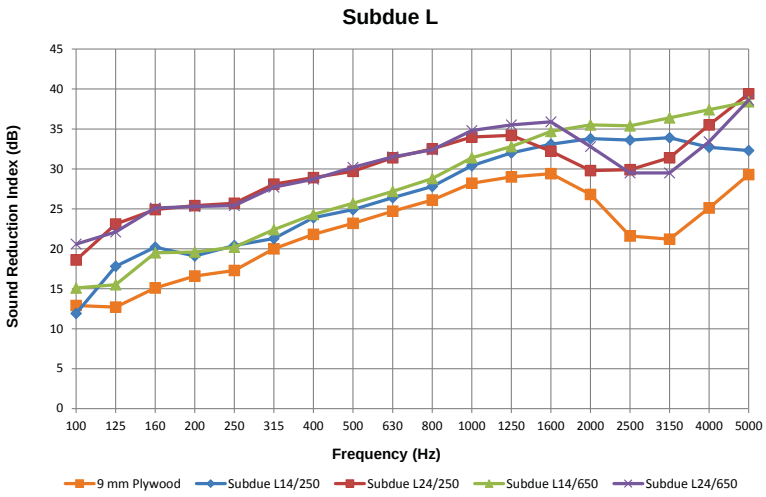
PRODUCT SPECIFICATIONS

Grade	Nominal Total Thickness (mm)	Panel Construction (mm)			Nominal Weight (kg/m²)	Flexural strength (MPa) ASTM D790 (Report no. 23611PH)	Rw / STC*	Decay rate (dB/s)	Sheet size (mm x mm)
		Ply	Core	Ply					
Subdue L14/250	14	4	6	4	5	22	29/29	606	2440 x 1220 (untrimmed)**
Subdue L24/250	24	9	6	9	10	26	32/32	1000	
Subdue L14/650	14	4	5	4	7	26	30/30	709	2400 x 1200 (Trimmed)
Subdue L24/650	24	9	5	9	12	29	32/32	1000	

*Tolerances: Directions +5%; Weight: Nominal based on Okoume plywood; *Refer to Acoustic Performance below; **Untrimmed means some layers may overhang the usable width. Other grades and thicknesses available. Please contact your local Pyrotek representative for more information.*

ACOUSTIC PERFORMANCE

Frequency (Hz)	9 mm Plywood	Subdue L14/250	Subdue L24/250	Subdue L14/650	Subdue L24/650
100	12.9	11.9	18.6	15.1	20.6
125	12.7	17.8	23.1	15.5	22.1
160	15.1	20.2	24.9	19.5	25.1
200	16.6	19.1	25.4	19.6	25.3
250	17.3	20.4	25.7	20.2	25.4
315	20.0	21.3	28.1	22.4	27.7
400	21.8	23.9	28.9	24.3	28.7
500	23.2	24.9	29.7	25.7	30.2
630	24.7	26.4	31.4	27.2	31.5
800	26.1	27.8	32.5	28.8	32.4
1000	28.2	30.4	34.0	31.4	34.8
1250	29.0	32.0	34.2	32.8	35.5
1600	29.4	33.1	32.2	34.7	35.9
2000	26.8	33.8	29.8	35.5	32.8
2500	21.6	33.6	29.9	35.4	29.5
3150	21.2	33.9	31.4	36.4	29.5
4000	25.1	32.7	35.5	37.4	33.4
5000	29.3	32.3	39.4	38.4	38.6
Rw	25	29	32	30	32
STC	25	29	32	30	32



Tested to ISO 15186-1:2003 & 10140-4:2010 at University of Canterbury, New Zealand
Report Number: 222a

Tested with Okoume Plywood

PRODUCT CODE NOMENCLATURE

Subdue L 14 / 650

- L — product category
- 14 — total thickness
- 650 — core type

For further information and contact details, please visit our website
pyroteknc.com