



Lightweight Noise Barrier



Subdue® L is a lightweight multi layered noise barrier panel. The panels are constructed from two outer layers of marine grade Okoume ply, 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 to low privacy areas and typically used in commercial, marine and rail constructions.

The 'L' category of 'Subdue' panels includes inner cores with densities up to 1000kg/m³.

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. However, **Subdue's** unique multi layered composition with its inner core layer, shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of panels. **Subdue L** works by reflecting, absorbing and damping the vibration and transmission of sound through walls and floors, reducing the critical frequencies generated from mechanical equipment, engine noise 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 Okoume ply is tested to AS/NZS 2098.11 and classifies as 'E-0' for low Formaldehyde emission.

FEATURES

- Available in a range of lightweight marine grade plywood, tested to **BS1088**
- Tested to **EN717-2** and **AS/NZS 2098.11** for low Formaldehyde emission
- All panels have been tested to provide differing acoustic properties to suit differing designs
- 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 panels
- Inner core increases flexural strength
- Thin and lightweight panels whilst still possessing high noise reduction properties
- Bonded using water resistant glues, Weather and Boil Proof (WBP) tested, according to BS1088
- Available in preformed cut panels and varying constructions (offering weight savings) to suit differing designs
- **Subdue L**: Product category with core layer densities up to 1000kg/m³

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 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

(Please refer to Information pages '325P' and '335IP' for choice of ply)

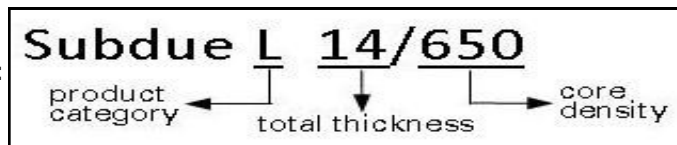
PRODUCT SPECIFICATIONS

SERIES	PRODUCT CODE	CORE MATERIAL	TOTAL THICKNESS (mm)	PANEL CONSTRUCTION Ply / Core / Ply (mm)	TOTAL WEIGHT (kg/m ²)	¹ FLEXURAL STRENGTH (Mpa)	² DECAY RATE (dB/s)	SHEET SIZES (mm X mm)
SUBDUE L	L14/250	Cork	14	4/6/4	5.3	22.1	606	2440 X 1220 (Untrimmed)*
	L18/250		18	6/6/6	7.5	30.8	1240	
	L24/250		24	9/6/9	10.5	26.0	1000	
	L14/650	Cork and Rubber	14	4/6/4	7.4	25.5	709	1200 x 2400 (Trimmed)
	L18/650		18	6/6/6	9.6	31.2	848	
	L24/650		24	9/6/9	12.6	29.3	1000	

Tolerances: Dimensions +5%; Weight: +/- 10%; *Untrimmed means some layers may overhang the usable width. Other grades of plywood can be used upon request.

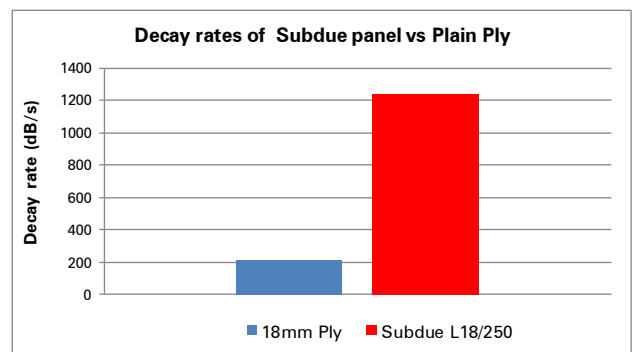
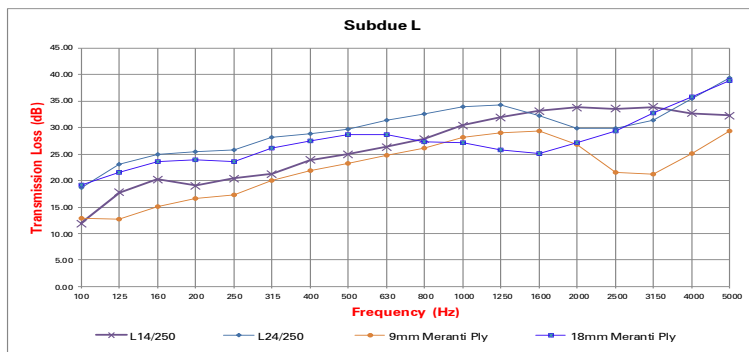
¹ Report No 23611PH/PH-1/PH-2; ² Report No 32911-MK;

Product Code Nomenclature:

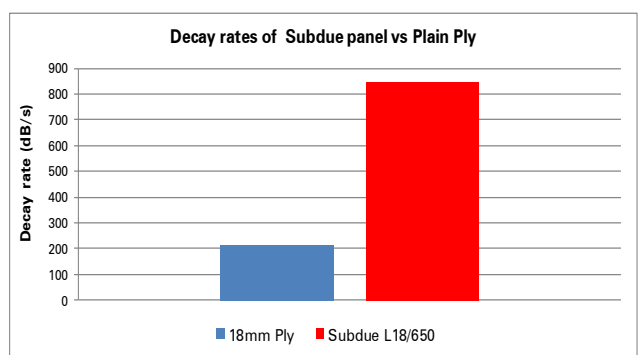
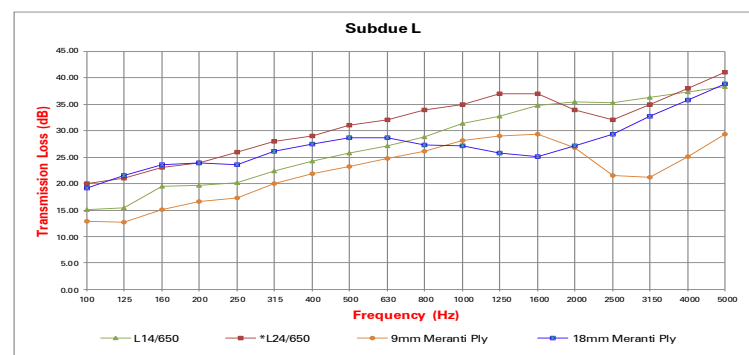


TRANSMISSION LOSS

(Tested to ISO 15186-1/ISO 10140-4 Report date 07/09/2011)



Frequency (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
L14/250	11.88	17.76	20.22	19.08	20.40	21.28	23.86	24.95	26.36	27.85	30.43	31.95	33.10	33.79	33.58	33.86	32.67	32.28
L24/250	18.60	23.10	24.90	25.40	25.70	28.10	28.90	29.70	31.40	32.50	34.00	34.20	33.10	33.79	33.58	33.86	35.50	39.40
9mm Ply	12.90	12.70	15.10	16.60	17.30	20.00	21.80	23.20	24.70	26.10	28.20	29.00	29.40	26.80	21.60	21.20	25.10	29.30
18mm Ply	19.10	21.50	23.50	23.90	23.50	26.20	27.50	28.70	28.70	27.30	27.20	25.80	25.10	27.20	29.40	32.70	35.80	38.90
L14/650	15.10	15.45	19.46	19.64	20.15	22.37	24.27	25.73	27.22	28.80	31.44	32.77	34.69	35.50	35.36	36.36	37.36	38.37
*L24/650	20.00	21.00	23.00	24.00	26.00	28.00	29.00	31.00	32.00	34.00	35.00	37.00	37.00	34.00	32.00	35.00	38.00	41.00



Caveats: Specifications are subject to change without notice. The data in this document are typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic or mechanical engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek NC is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights. DISCLAIMER: This document is covered by Pyrotek standard Disclaimer, Warranty and © Copyright clauses. See www.pyroteknc.com/disclaimer.

AUSTRALIA
1300 928 322
(1300 WAVEBAR)
+61(0)2 8868 2088

CHINA
+86(0)755 8601 6449
HONG KONG
+852 2548 4443

CZECH REPUBLIC
+420 516 527 195
+420 725 373 966

DUBAI
+971 (50) 624 9254
INDIA
+91 9819 330 499
+91 2137 668 000

NEW ZEALAND
0800 226 878 427
(0800 ACOUSTICS)
+64(0)9 272 2056

TAIWAN
+886 6 313 1267
INDONESIA
+62 81 1889 1917

UNITED KINGDOM
+44(0)1908 561155
TURKEY
+90 212 230 3033

USA
+1 509 991 8548
+1 856 816 0194



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