

تاریخ: ۱۳۹۴/۰۸/۲۴

شماره: ۹۴/ن/۱۲۱

پست:

نتایج جهانی آزمایشگاهی عایق صوتی دیوارهای اکوتک

نتایج آزمایشگاهی کشور سنگاپور با دیوارهای اکوتک (ضخامت ۱۰۰ میلیمتر)

Test Report No. 7191047494-MEC12/02-EMK
dated 25 Oct 2012

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SUBJECT:

Laboratory measurement of airborne sound transmission loss of pre-cast panel partition system submitted by Lian Wang Trading Pte Ltd on 5 Oct 2012.

TESTED FOR:

Lian Wang Trading Pte Ltd
No 10 Senoko Loop
Singapore 758148
Attn : Mr Steven Tan

DATE OF TEST:

17 Oct 2012

DESCRIPTION OF SAMPLES:

A "Great Wall Ultra-Lightweight" pre-cast panel partition system with 3mm thick skim coat on each sides was installed onto a filler wall of the sample carrier by Lian Wang Trading Pte Ltd.

Overall dimension of partition system: 3150mm (width) x 2800mm (height) x 100mm (thick)
Measured density of panel : 410kg/m³

The technical drawings of "Great Wall Ultra-Lightweight" pre-cast panel partition system was shown in Appendices.



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

		LA-2007-0380-A LA-2007-0381-F LA-2007-0382-B LA-2007-0383-G LA-2007-0384-G LA-2007-0385-E LA-2007-0386-C LA-2010-0464-D	The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme. Tests/Calibrations marked "Not SAC-SINGLAS Accredited" in this Report are not included in the SAC-SINGLAS Accreditation Schedule for our laboratory.
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RESULTS:

Values of sound transmission loss (TL) of the tested sample were tabulated in Table 1. Sound insulation rating was computed according to ASTM E413 - 04 "Classification for rating sound insulation".

**Table1: Measured Sound Transmission Loss, TL and values of the shifted reference curve
For STC = 36**

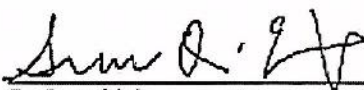
1/3 Octave Band Frequency (Hz)	Measured Sound Transmission Loss, TL (dB)	Shifted Reference Curve STC -36 (dB)	Deficiency
100	30.1	17	0.0
125	27.2	20	0.0
160	31.2	23	0.0
200	29.7	26	0.0
250	28.8	29	0.2
315	30.0	32	2.0
400	29.1	35	5.9
500	29.8	36	6.2
630	31.8	37	5.2
800	33.4	38	4.6
1000	34.9	39	4.1
1250	37.9	40	2.1
1600	40.1	40	0.0
2000	42.1	40	0.0
2500	43.3	40	0.0
3150	42.0	40	0.0
4000	43.9	40	0.0
5000	46.4	40	0.0
Total deficiency (125Hz - 4000Hz)			30

The value in Table 1 were plotted as shown in Figure 1.

Remarks :

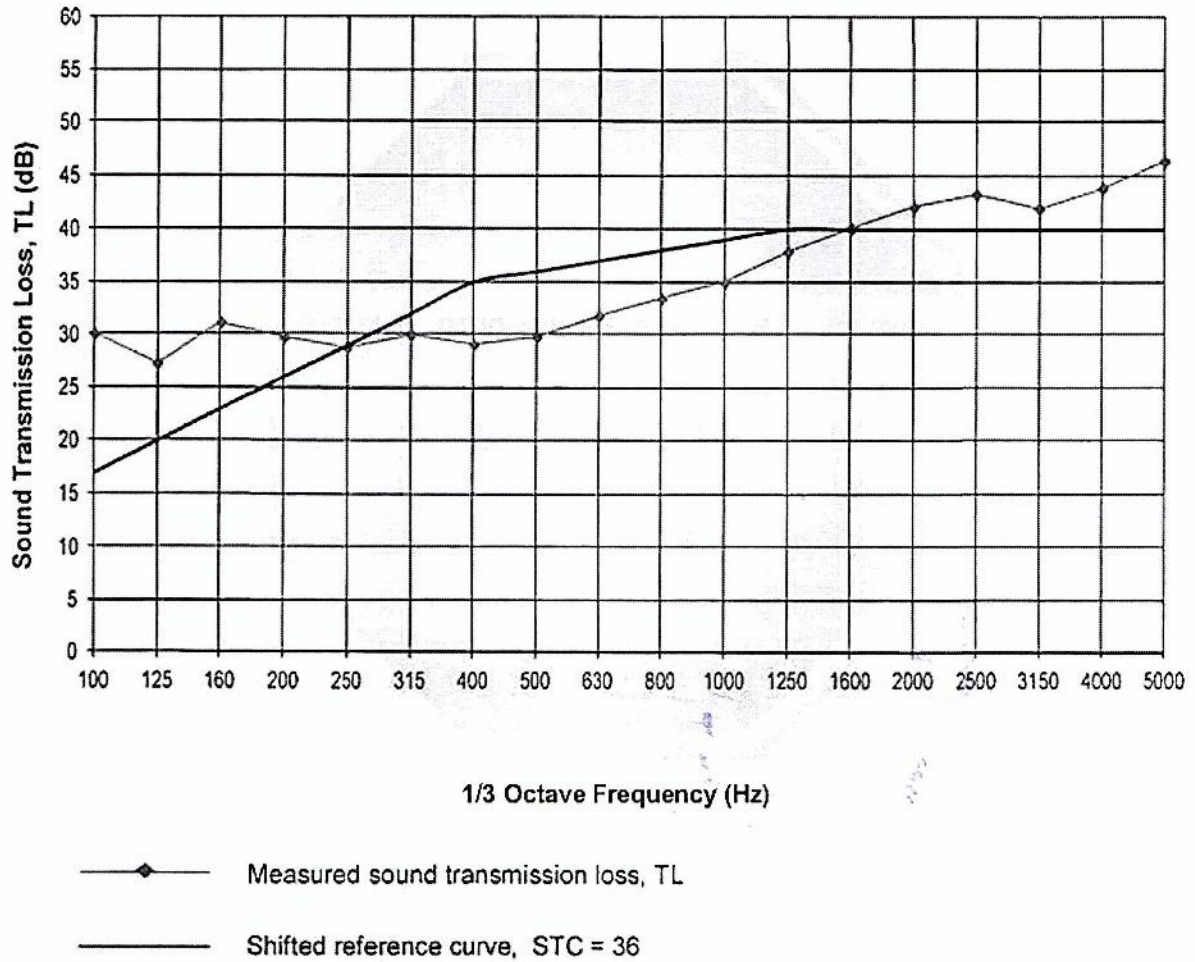
The tested 100mm thick Greatwall ultra lightweight pre-cast panel partition system achieved a sound transmission class, STC = 36


Francis Ee Min Kuen
Testing Officer


Dr Sun Qiqing
Assistant Vice President
Acoustics
Mechanical Centre

RESULTS: (cont'd)

Figure 1 : Sound transmission loss performance "Great Wall Ultra Lightweight" pre-cast panel partition system



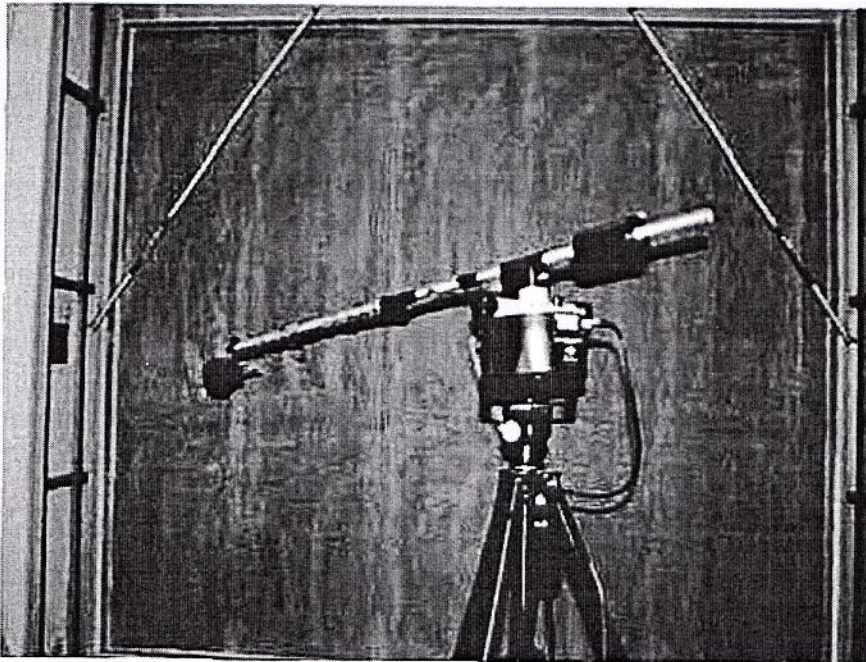


Figure 2 : Pre-cast panel partition system facing the source room

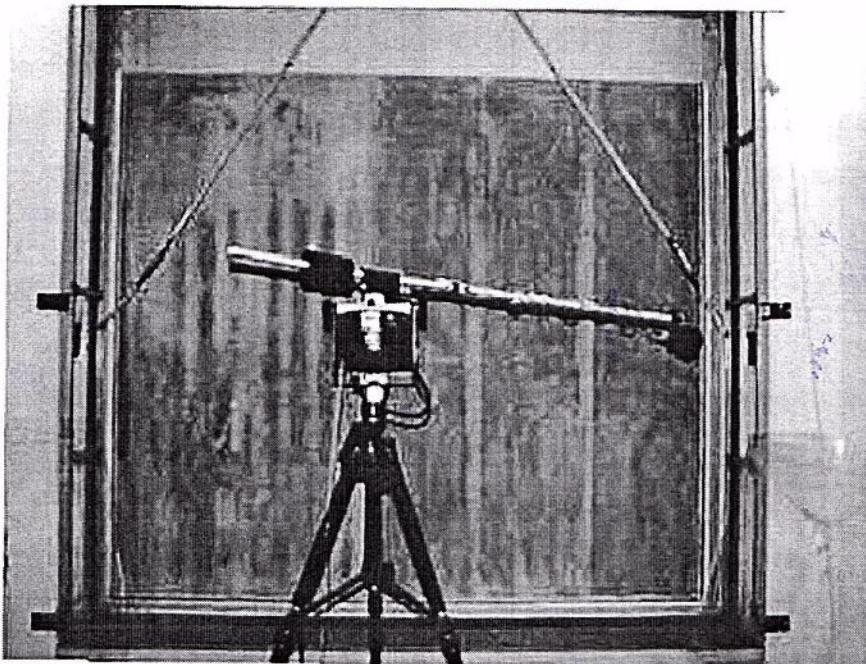


Figure 2 : Pre-cast panel partition system facing the receiving room