

## TEST REPORT

APPLICANT : ARMSTRONG FLOORING

REPORT NO. : D270-15-00790

SAMPLE RECEIVED DATE : 2015-05-15

REPORT ISSUED DATE : 2015-06-08

PAGE : 1 OF 2

SAMPLE DESCRIPTION : ONE(1) PIECE OF SUBMITTED CUTTING SAID TO BE FLOOR COVERING.

ITEM : AMSTRONG TIMBERLINE

TEST CONDUCTED : AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE SEE ATTACHED PAGES.

- SAMPLE PHOTO -



PREPARED AND CHECKED BY  
FOR FITI

*Seongkeun Jang*

SEONG-KEUN, JANG  
QUALITY MANAGER

AUTHORIZED BY  
FOR FITI

*Moon Ok Noh*

MOON-OK NOH  
PRESIDENT

※ Report Verification No.: TUDE-L33J-FFVH ※

(You can see the authenticity of your test report through the above "Report Verification No." at FITI homepage.)

### e-DOCUMENT SERVICE

The test results contained in this report are limited to results on the sample(s) that is provided by client and are not necessarily indicative or representative of the qualities of the lot from which the sample(s) was taken or of all products. Results contained in this report are not based on the quality certification of sample by the FITI quality certification program unless specifically requested by the client. Further use of the results of this report is prohibited unless allowed under a separate agreement set forth in an official document that is established between the client identified on this letter and the FITI.

(01) DETERMINATION OF EMISSION OF VOLATILE ORGANIC COMPOUNDS AND FORMALDEHYDE FROM BUILDING MATERIALS  
BY SMALL-SCALE EMISSION TEST CHAMBER METHOD  
( THE MINISTRY OF ENVIRONMENT NOTIFICATION 2010-24 : OFFICIAL TEST METHODS OF INDOOR AIR QUALITY(2010) )

#1

ITEM		TEST RESULTS
TOTAL VOLATILE ORGANIC COMPOUNDS(TVOC) - EFa(mg/m <sup>2</sup> · h)		0.173
5VOC - EFa(mg/m <sup>2</sup> · h)	BENZENE	<0.001
	TOLUENE	0.001
	ETHYLBENZENE	<0.001
	XYLENE	<0.001
	STYRENE	<0.001
FORMALDEHYDE(HCHO) - EFa(mg/m <sup>2</sup> · h)		<0.001
ACETALDEHYDE(CH <sub>3</sub> CHO) - EFa(mg/m <sup>2</sup> · h)		<0.001
※ EFa : AREA SPECIFIC EMISSION FACTOR(mg/m <sup>2</sup> · h)		

· TEST DETAILS

TEST CONDITIONS IN THE EMISSION TEST CHAMBER	TEMPERATURE(°C) : 25	
	RELATIVE AIR HUMIDITY(%) : 50	
	AIR EXCHANGE RATE(TIMES/h) : 0.5	
SURFACE AREA OF THE TEST SPECIMEN AND PRODUCT LOADING FACTOR	SURFACE AREA OF THE TEST SPECIMEN(m <sup>2</sup> ) : 0.038 6	
	PRODUCT LOADING FACTOR(m <sup>2</sup> /m <sup>3</sup> ) : 2.0	
AIR SAMPLING DEVICES	SORBENT TUBE	TVOC : TENAX-TA ABSORBENT
		HCHO : OZONE SCRUBBER(WATERS 054420) + LP-DNPH(SUPELCO 21014)
	SAMPLED AIR VOLUME(L)	TVOC : 4
		HCHO : 6
CHAMBER EMISSION TIME(h) : 168		
MEASURING INSTRUMENT	EMISSION TEST CHAMBER SIZE(L) : 20	
	TEMPERATURE, HUMIDITY, AIR VELOCITY MONITORING SYSTEM, AIR FLOW METER, AIR SAMPLE PUMP : ADPAC SYSTEM(JAPAN)	
	TVOC : ATD(PERKIN ELMER TUBOMATRIX ATD, USA) - GC/MSD(AGILENT 5973, USA)	
	HCHO : HPLC(AGILENT 1100 SERIES, USA)	

NOTE) SEE THE ATTACHMENT

e-DOCUMENT SERVICE

The test results contained in this report are limited to results on the sample(s) that is provided by client and are not necessarily indicative or representative of the qualities of the lot from which the sample(s) was taken or of all products. Results contained in this report are not based on the quality certification of sample by the FITI quality certification program unless specifically requested by the client. Further use of the results of this report is prohibited unless allowed under a separate agreement set forth in an official document that is established between the client identified on this letter and the FITI.