

# Emission Test Certificate

Tuesday 05<sup>th</sup> September 2023

<b>Supplier</b>	Etex Australia Pty Ltd (31 Military Road, MATRAVILLE, NSW 2036, Australia).
<b>Manufacturer</b>	Siniat Australia (91-99 Ajax Road, Altona, VIC, 3018, Australia)
<b>Sample Description</b>	Watershield Plasterboard – 10 mm thickness
<b>Date Tested</b>	August 2023 (Tested by FORAY Laboratories – NATA Accreditation 1231)
<b>Test Method</b>	CDPH Ver 1.2: 2017: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.2: 2017 (Emission testing method for California Specification CA 01350)

Sample and Chamber conditions during the test period:

<b>Temperature</b>	22.9°C ± 0.4°C
<b>Humidity</b>	55% ± 3%
<b>Chamber Volume</b>	50 L
<b>Chamber Flow Rate</b>	0.842 L/min
<b>Chamber Pressure</b>	109.2 kPa
<b>Product Loading</b>	0.64 m <sup>2</sup> /m <sup>3</sup>
<b>Air Exchange Rate</b>	1.011 hr <sup>-1</sup>
<b>Emission Collection Time</b>	1480 min for formaldehyde and aldehydes and 121 min for Therma Desorption tubes VOCs.
<b>Sample Surface Area</b>	0.032 m <sup>2</sup>
<b>Exposure of sample in chamber</b>	14 days (336 hours)

**Test summary:** The air samples were collected from the emission chamber at 336 hours for aldehydes and VOCs. The aldehyde gases were collected on DNPH-treated silica tubes (SKC 226-119) and analysed by Ultra High-Performance Liquid Chromatography (UHPLC). The VOC gases were collected on Tenax TA Thermal Desorption tubes and analysed by ATD-GC-MS as TO-17.

**Emission Data:**

<b>California Specification CA 01350</b>	<b>Watershield Plasterboard – 10 mm thickness</b>
TVOC Emission concentration Limit: <0.500 mg/m <sup>3</sup>	TVOC Emission Concentration*: 0.259 mg/m <sup>3</sup>
Formaldehyde Emission Concentration Limit: <9 µg/m <sup>3</sup>	Formaldehyde Emission Concentration*: <4 µg/m <sup>3</sup>
<b>All other Target CREL VOCs and their emission rate are well below the maximum allowable concentrations in accordance with Table 4-1 of the standard method (please see it in Annex 1 below).</b>	
<b>The results above may be considered representative of the equivalent and lesser weighted product specifications that are made from the same raw material by Etex Australia Pty Ltd and these include Watershield Plasterboard – 13 mm thickness.</b>	

\* The stated result was calculated from an emission rate applied to the Standard Private Office Model (Table 4-4) using 44.55 m<sup>2</sup> exposed wall and ceiling area, room volume of 30.6 m<sup>3</sup>, and ventilation rate of 0.68 hr<sup>-1</sup>.



Watershield Plasterboard – 10 mm thickness sample



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**Annex 1: TVOC & Target VOC calculated concentration as Table 4-1 from Watershield Plasterboard.**

Sample ID	CAS number	Calculated Concentrations* ( $\mu\text{g}/\text{m}^3$ )
Analyte		161264
TVOC (C <sub>5</sub> -C <sub>17</sub> )	-	259
Acetaldehyde	75-07-0	<4.0
Benzene	71-43-2	<2.0
Carbon disulfide	75-15-0	<2.0
Carbon tetrachloride	56-23-5	<2.0
Chlorobenzene	10-90-7	<2.0
Chloroform	67-66-3	<2.0
1,4-dichlorobenzene	106-46-7	<2.0
1,1-dichloroethene	75-35-4	<2.0
N, N-dimethylformamide	68-12-2	<2.0
1,4-dioxane	123-91-1	<2.0
Epichlorohydrin	106-89-8	<2.0
Ethylbenzene	100-41-4	2.0
Ethylene glycol	107-21-1	<2.0
Ethylene glycol monomethyl ether	110-80-5	<2.0
Ethyleneglycol monomethyl ether acetate	111-15-9	<2.0
Ethyleneglycol monomethyl ether	109-86-4	<2.0
Ethyleneglycol monomethyl ether acetate	110-49-6	<2.0
Formaldehyde	50-00-0	<4.0
n-hexane	110-54-3	<2.0
Isophorone	78-59-1	<2.0
Isopropanol	67-63-0	<2.0
Methyl chloroform	71-55-6	<2.0
Methylene chloride	75-09-2	<2.0
Methyl t-butyl ether	1634-04-4	<2.0
Naphthalene	91-20-3	<2.0
Phenol	108-95-2	<2.0
Propylene glycol monomethyl ether	107-98-2	<2.0
Styrene	100-42-5	<2.0
Tetrachloroethene	127-18-4	<2.0
Toluene	108-88-3	9.0
Trichloroethylene	79-01-6	<2.0
Vinyl acetate	108-05-4	<2.0
Xylenes (m-, o- & p-)	108-38-3, 95-47-6, 106-42-3	<2.0

\* The stated result was calculated from an emission rate applied to the Standard Private Office Model (Table 4-4) using a 44.55 m<sup>2</sup> exposed wall and ceiling area, a room volume of 30.6 m<sup>3</sup>, and a ventilation rate of 0.68 hr<sup>-1</sup>.