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WOVEN IMAGE
TEST REPORT

SCOPE OF WORK
CDPH 01350 Standard Method Version 1.2 on Zen Embossed Panel 550

REPORT NUMBER
106277965GRR-001

ISSUE DATE
29-October-2025

PAGES
11

DOCUMENT CONTROL NUMBER
Per GRVOC-RT-050a (09-December-2024)

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TEST REPORT FOR WOVEN IMAGE PTY LTD

Report No.: 106277965GRR-001
Date: 29-October-2025
P.O.: APO006712

SECTION 1

CLIENT INFORMATION

Attention: Georgina Morris
Woven Image PTY LTD
376 Victoria Street
Wetherill Park, NSW, 2164 AUS
Phone: +61 415487195
Email: gmorris@csr.com.au

Lindsay Delamarter
Project Engineer

Kyle Tanis
Project Reviewer

SECTION 2
SUMMARY AND CONCLUSION

Test Method:	Standard Method Version 1.2 for CDPH 01350
Modeling Scenario:	Private office (PO), school classroom (SC) and single family residence (R)

CLIENT PROVIDED SAMPLE INFORMATION

Manufacturer / Location	Woven Image PTY LTD / North Ryde, Australia
Product Name	Zen Embossed Panel 550
Product Number	Not Specified
Product Description	Laminated PET nonwoven composite thermoformed wall tile – Surfaces & Panels
Date of Manufacture	29-September-2025
Date of Collection	29-September-2025
Date of Shipment	01-October-2025

DESCRIPTION OF SAMPLES

Date Received by Lab	06-October-2025
As Received Sample Condition	Good Condition
Lab Sample ID	GRR2510060008-1
Material Submitted	Three (3) PET panels

WORK REQUESTED/APPLICABLE DOCUMENTS

VOC Emissions Analysis:	CDPH Standard Method v1.2
Intertek Quote:	Qu-01556873

TEST RESULTS

CDPH Standard Method v1.2, Table 4.1

MODELING SCENARIO	RESULT (PASS/FAIL)
Private Office (PO)	**PASS**
School Classroom (SC)	**PASS**
Single Family Residence (R)*	**PASS**

*Note: The single family residence scenario is not yet a CDPH requirement. It is provided for informational purposes only.

LEED v4 Total Volatile Organic Compounds (TVOC)

MODELING SCENARIO	TVOC (mg m^{-3})
Private Office (PO)	**< 0.1**
School Classroom (SC)	**< 0.1**
Single Family Residence (R)*	**< 0.1**

*Note: The single family residence scenario is not yet a CDPH requirement. It is provided for informational purposes only.

SAMPLE DISPOSITION

At the completion of testing, samples were disposed of in a routine manner.

SECTION 3
CDPH STANDARD METHOD V1.2

Date Received:	06-October-2025
Dates Tested:	09-October-2025 to 24-October-2025

ACCEPTANCE CRITERIA:

Referencing:	CDPH Standard Method v1.2, Table 4.1 LEED v4 - Low Emitting Materials
LEED v4 - TVOC Ranges:	≤ 0.5 mg m^{-3} 0.5 to 5.0 mg m^{-3} ≥ 5.0 mg m^{-3}

TEST NOTES OR DEVIATIONS:

Testing performed without deviation.

TEST SUMMARY:

The emissions testing was performed according to "Standard Method for the Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers Version 1.2". A photograph of the tested sample is included herein. The sample was placed into the test chamber with all surfaces exposed. The sample was conditioned outside of the test chamber at 23 ± 2°C and 50 ± 10% RH. Air samples were collected prior to the sample being placed in the test chamber (0 hours) and at 264, 288, and 336 hours after preparation. Samples analyzed for individual VOCs and TVOC were collected on multi-sorbent tubes containing glass wool, Tenax TA 35/60 and Carbograph 5 TD 40/60. These VOC samples were analyzed by thermal desorption-gas chromatography/mass-spectrometry, TD-GC/MS. TVOC was calculated through integration of the chromatogram from n-pentane through n-heptadecane using toluene as a surrogate. Individual VOCs were calculated using calibration curves based on pure standards unless otherwise noted. Samples analyzed for low molecular weight aldehydes were collected on cartridges treated with 2,4-di-nitrophenylhydrazine (DNPH). Low molecular weight aldehydes were analyzed using high performance liquid chromatography, HPLC.

Table 1: Conditioning and test timing

EXPERIMENT PHASE	START DATE	DURATION
Conditioning	09-October-2025	10 Days
Chamber Testing	19-October-2025	4 Days

RESULTS:

Table 2: Sample and Chamber Conditions during Test Period

PARAMETER		SYMBOL	VALUE	UNITS
Sample Dimensions	Length	-	0.245	m
	Width	-	0.245	m
	Thickness	-	0.010	m
Exposed Sample Surface Area		*A*	0.060	m^2
Chamber Volume		*V*	0.116	m^3
Chamber Loading Factor		*L*	0.52	$m^2\ m^{-3}$
Inlet Air Flow Rate		*Q*	0.116	$m^3\ h^{-1}$
Air Change Rate		N_{ACH}	1.00	h^{-1}
Area Specific Flow Rate		q_A	1.93	$m\ h^{-1}$
Chamber Pressure (Range)		P	16.3 (15.0-17.1)	Pa
Average Temperature (Range)		T	23.2 (23.1-23.4)	°C
Average Humidity (Range)		RH	50.0 (47.9-51.7)	% RH
Testing Duration		t	336	h

Table 3: Test chamber background VOC concentrations in µg m^{-3}.

COMPOUND	CAS No.	C_{i0}
Formaldehyde	50-00-0	2.5
TVOC	-	< 20

Table 4: Test chamber TVOC and formaldehyde concentrations in µg m^{-3}.

COMPOUND	CAS No.	264 H	288 H	336 H
Formaldehyde	50-00-0	2.1	2.2	1.9
TVOC	-	< 20	< 20	< 20

Table 5: Test chamber TVOC and formaldehyde emission factors in µg $m^{-2}\ h^{-1}$.

COMPOUND	CAS No.	264 H	288 H	336 H
Formaldehyde	50-00-0	< 0.6	< 0.6	< 0.6
TVOC	-	< 31	< 31	< 31

Individual emitted VOCs identified above the lower limits of quantitation are listed in Table 6; VOCs which are listed on chemical of concern lists or have CRELs are indicated.

The measured chamber concentrations and corresponding emission factors of identified individual VOCs and TVOCs are listed in Table 7.

In Tables 5, 7 and 8, emission factors were calculated using equation 3.1 in CDPH Standard Method V1.2:

$$EF_{Ai} = \frac{Q \times (C_{it} - C_{i0})}{A_C}$$

The inlet flow rate, Q ($m^3\,h^{-1}$), is the measured flow rate of air into the chamber. The chamber concentration, C_{it} (µg m^{-3}), is the concentration of a target VOC_i, formaldehyde and other carbonyl compounds measured at time t. The chamber background concentration, C_{i0} (µg m^{-3}), is the corresponding concentration measured with the chamber operating without a test specimen. The exposed surface area of the test specimen in the chamber, A_C (m^2), is determined from the measurements made at the time of specimen preparation.

Table 6: VOCs detected above lower limits of quantitation in air samples at 336 hours.

VOC	CAS No.	SURROGATE[1]	CREL[2] (µg m^{-3})	CARB TAC[3]	PROP 65 LIST[4]
Unknown	-	Yes	-	-	-

[1]Indicates which non-listed VOCs were quantified using surrogate compounds, all other compounds were quantified using pure compounds.
[2]Chronic Reference Exposure Level (CREL) as defined by California Office of Environmental Health Hazard Assessment.
[3]Substance is listed on California Air Resource Board's (CARB) Toxic Air Contaminate (TAC) identification list.
[4]Substance known to the state of California to cause cancer or reproductive toxicity according to California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Table 7: Measured chamber concentrations and corresponding emission factors of individual VOCs listed in Table 4-1 of CDPH 01350 V1.2. at 336 hours.

VOC	CAS No.	CHAMBER CONCENTRATION ($\mu g\ m^{-3}$)	EMISSION FACTOR ($\mu g\ m^{-2}\ h^{-1}$)
Formaldehyde	50-00-0	**1.9**	< 0.6
Acetaldehyde	75-07-0	< 3.7	< 7.0
Vinyl acetate	108-05-4	< 0.8	< 1.6
Epichlorohydrin	106-89-8	< 1.8	< 3.5
Ethanol, 2-methoxy-, acetate	110-49-6	< 1.2	< 2.3
Isopropyl Alcohol	67-63-0	< 0.6	< 1.1
Ethene, 1,1-dichloro-	75-35-4	< 0.6	< 1.1
Methylene chloride	75-09-2	< 0.7	< 1.4
Carbon disulfide	75-15-0	< 0.6	< 1.1
Methyl tert-butyl ether	1634-04-4	< 2.5	< 4.9
n-Hexane	110-54-3	< 0.5	< 0.9
Trichloromethane (Chloroform)	67-66-3	< 0.3	< 0.5
Ethanol, 2-methoxy-	109-86-4	< 1.5	< 2.8
Ethane, 1,1,1-trichloro-	71-55-6	< 0.4	< 0.7
Benzene	71-43-2	< 0.4	< 0.7
Carbon Tetrachloride	56-23-5	< 0.1	< 0.2
2-Propanol, 1-methoxy-	107-98-2	< 1.1	< 2.1
Ethylene glycol	107-21-1	< 9.2	< 18
Trichloroethylene	79-01-6	< 0.6	< 1.2
1,4-Dioxane	123-91-1	< 0.6	< 1.2
Ethanol, 2-ethoxy-	110-80-5	< 2.0	< 3.8
Toluene	108-88-3	< 0.8	< 1.5
Formamide, N,N-dimethyl-	68-12-2	< 1.9	< 3.6
Tetrachloroethylene	127-18-4	< 0.4	< 0.8
Benzene, chloro-	108-90-7	< 0.4	< 0.8
Ethylbenzene	100-41-4	< 0.2	< 0.4
Xylene (-m, -p, & -o)	108-38-3, 95-47-6, 106-42-3	< 1.1	< 2.1
Styrene	100-42-5	< 0.5	< 1.0
2-Ethoxyethyl acetate	111-15-9	< 0.4	< 0.8
Phenol	108-95-2	< 0.8	< 1.6
Benzene, 1,4-dichloro-	106-46-7	< 0.1	< 0.2
Isophorone	78-59-1	< 0.3	< 0.7
Naphthalene	91-20-3	< 0.2	< 0.4

Table 8: Measured chamber concentrations and corresponding emission factors of identified non-listed individual VOCs and TVOC at 336 hours.

VOC	CAS No.	CHAMBER CONCENTRATION (µg m^{-3})	EMISSION FACTOR (µg m^{-2} h^{-1})
Unknown	-	4.7	9.1
TVOC	-	< 20	< 31

Exposure Scenario Modeling and Evaluation:

Estimated building concentrations for the listed scenarios were calculated using equation 3.2a of CDPH Standard Method V1.2:

$$C_{Bi} = \frac{EF_{Ai} \times A_B}{Q_B}$$

The area specific emission rate EF_A at 336 hours (14 days) total exposure time is multiplied by the ratio of the exposed surface area of the installed material in the building, A_B (m^2), to the flow rate of outside ventilation air, Q_B ($m^3\,h^{-1}$).

The modeling parameters used for the given scenarios are listed in Table 9. The modeled concentrations of identified individual VOCs are listed in Tables 10 & 11. Whether the modeled concentrations meet the maximum allowable concentration requirements specified in Table 4.1 of CDPH Standard Method V1.2 are also indicated.

Table 9: Standard modeling parameters for wallcovering and ceiling.

PARAMETER	SYMBOL	VALUE	UNITS
Exposed Surface Area Installed in *Private Office (PO)*	A_B	44.5	m^2
Air flow rate of *Private Office (PO)*	Q_B	20.7	$m^3\,h^{-1}$
Exposed Surface Area Installed in *Classroom (SC)*	A_B	184	m^2
Air flow rate of *Classroom (SC)*	Q_B	191	$m^3\,h^{-1}$
Exposed Surface Area Installed in *Residence (R)*	A_B	779	m^2
Air flow rate of *Residence (R)*	Q_B	127	$m^3\,h^{-1}$

Table 10: Modeled concentrations of individual VOCs specified in Table 4-1 of CDPH 01350 V1.2.

VOC	CAS NO.	MODELED CONCENTRATION (µg m^{-3})			CONC. LIMIT (µg m^{-3})	RESULT Pass (P) /Fail (F)		
		PO	SC	R		PO	SC	R
Formaldehyde	50-00-0	< 1.2	< 0.5	< 3.4	9	P	P	P
Acetaldehyde	75-07-0	< 15.1	< 6.8	< 43.2	70	P	P	P
Vinyl acetate	108-05-4	< 3.4	< 1.5	< 9.6	100	P	P	P
Epichlorohydrin	106-89-8	< 7.5	< 3.4*	< 21.4*	1.5	P	P	P
Ethanol, 2-methoxy-, acetate	110-49-6	< 4.9	< 2.2	< 14.1	45	P	P	P
Isopropyl Alcohol	67-63-0	< 2.4	< 1.1	< 6.7	3,500	P	P	P
Ethene, 1,1-dichloro-	75-35-4	< 2.4	< 1.1	< 7.0	35	P	P	P
Methylene chloride	75-09-2	< 3.1	< 1.4	< 8.8	200	P	P	P
Carbon disulfide	75-15-0	< 2.4	< 1.1	< 6.7	400	P	P	P
Methyl tert-butyl ether	1634-04-4	< 10.5	< 4.7	< 29.9	4,000	P	P	P
n-Hexane	110-54-3	< 2.0	< 0.9	< 5.7	3,500	P	P	P
Trichloromethane (Chloroform)	67-66-3	< 1.2	< 0.5	< 3.3	150	P	P	P
Ethanol, 2-methoxy-	109-86-4	< 6.1	< 2.7	< 17.4	30	P	P	P
Ethane, 1,1,1-trichloro-	71-55-6	< 1.6	< 0.7	< 4.6	500	P	P	P
Benzene	71-43-2	< 1.5	< 0.7	< 4.2*	1.5	P	P	P
Carbon Tetrachloride	56-23-5	< 0.5	< 0.2	< 1.5	20	P	P	P
2-Propanol, 1-methoxy-	107-98-2	< 4.6	< 2.1	< 13.1	3,500	P	P	P
Ethylene glycol	107-21-1	< 38	< 17	< 110	200	P	P	P
Trichloroethylene	79-01-6	< 2.6	< 1.2	< 7.4	300	P	P	P
1,4-Dioxane	123-91-1	< 2.6	< 1.2	< 7.4	1,500	P	P	P
Ethanol, 2-ethoxy-	110-80-5	< 8.2	< 3.7	< 23.5	35	P	P	P
Toluene	108-88-3	< 3.3	< 1.5	< 9.4	150	P	P	P
Formamide, N,N-dimethyl-	68-12-2	< 7.8	< 3.5	< 22.3	40	P	P	P
Tetrachloroethylene	127-18-4	< 1.7	< 0.8	< 4.9	17.5	P	P	P
Benzene, chloro-	108-90-7	< 1.7	< 0.8	< 4.8	500	P	P	P
Ethylbenzene	100-41-4	< 0.9	< 0.4	< 2.6	1,000	P	P	P
Xylene (-m, -p, & -o)	108-38-3, 95-47-6, 106-42-3	< 4.4	< 2.0	< 12.6	350	P	P	P
Styrene	100-42-5	< 2.1	< 0.9	< 5.9	450	P	P	P
2-Ethoxyethyl acetate	111-15-9	< 1.7	< 0.8	< 5.0	150	P	P	P
Phenol	108-95-2	< 3.4	< 1.5	< 9.6	100	P	P	P
Benzene, 1,4-dichloro-	106-46-7	< 0.5	< 0.2	< 1.5	400	P	P	P
Isophorone	78-59-1	< 1.4	< 0.6	< 4.0	1,000	P	P	P
Naphthalene	91-20-3	< 0.8	< 0.3	< 2.2	4.5	P	P	P

*Individual VOC of concern is below lower LOQ for modeled scenario.

Table 11: Modeled concentrations of identified non-listed individual VOCs.

VOC	CAS NO.	MODELED CONCENTRATION ($\mu g\ m^{-3}$)		
		PO	SC	R
Unknown	-	19.7	8.8	56.1
$TVOC_{Toluene}$	-	< 83	< 37	< 237

PHOTOGRAPHS:

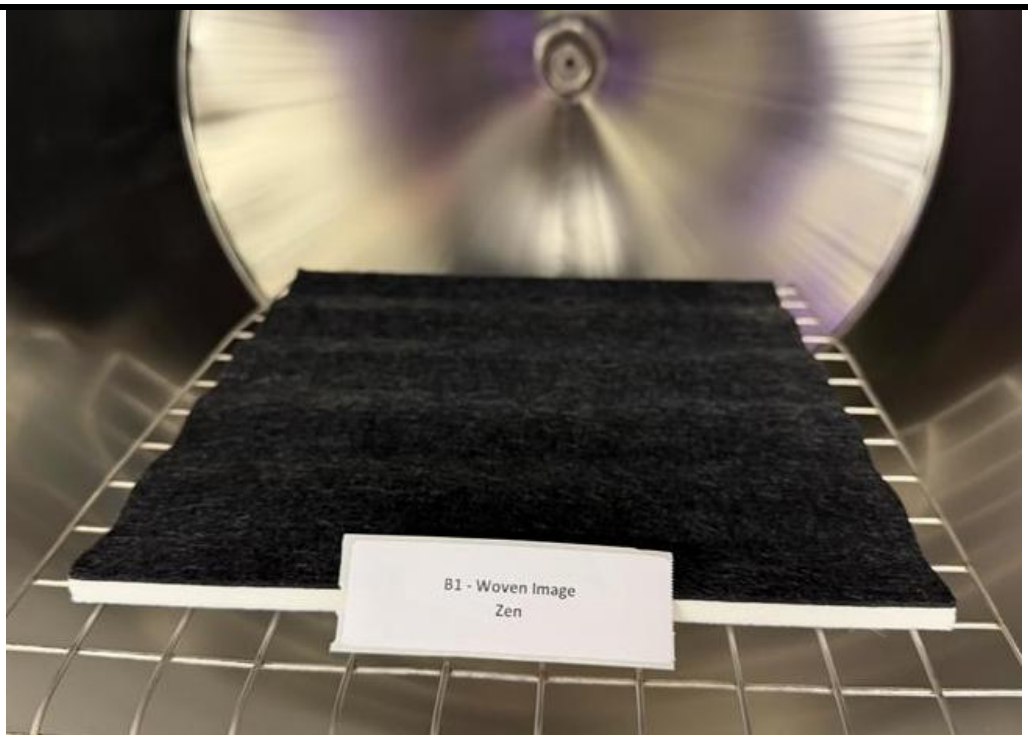

Figure 1: Photograph of sample in test chamber.

SECTION 4

CLIENT PROVIDED CHAIN OF CUSTODY

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Ship To:
Attn: VOC Laboratory
4700 Broadmoor Ave SE
Suite 200
Kentwood, MI 49512
Phone: 616-656-7401

Chain of Custody for Chemical Testing
Intertek Quotation Number: Qu-01556873-0
Purchase Order (enter Company and Number): APO006758

Customer Information
Company: CSR Building Products
Street Address: 3/39 Dehli Road
City/State/Postal code: North Ryde, NSW 2113
Country: Australia
Contact Name & Title (for reporting): Georgina Morris, Compliance Manger - Interiors
Contact Phone/Fax Numbers: +61 29844 7804
Contact E-mail Address: gmorris@csr.com.au
Financially Responsible Co. : Woven Image Pty Ltd

Shipping Details
Packed & Shipped By: Jorge Sanchez
Shipping Date: 01/10/2025
Carrier/Airbill Number: DHL 3247572285

Requested Testing
Test to be performed: CDPH01350 wall and ceiling

Customer Request for Certification	
Clean Air™ Certification:	☑ YES

Manufacturer Information (If Different)
Company: Woven Image Pty Ltd (owned by CSR Pty Ltd)
City/State/Country: North Ryde, NSW 2113, Australia
Contact Name/Title: Danielle van Asperen, Environment and Research Manager
Phone Number/E-mail Address: danielle.vanasperen@wovenimage.com

Special Customer Instructions
please include a photo of the sample in the report

Sample Details
Product Commercial Name*: Zen Embossed Panel 550
Product Commercial Part No.(if not part of the name)*:
Manufacturer Sample Tracking ID:
Date Manufactured*: 29/9/2025
Product Category & Use*: Surfaces & Panels (wall & ceiling)
Sample Construction Materials*: laminated PET nonwoven composite thermoformed wall tile
Plant Name & Location*: Woven Image, 10-14 Kendall St Gloucester NSW 2422
Collection Location within Plant: 10 Kendall Street
Date & Time Collected*: 24/9/2025
Number of Sample Pieces*: 2
Sample Collected by*: Tyler
Phone/Fax Numbers*: 0265582898
E-mail Address*: tyler.staudenmaier@wovenimage.com

Customer Authorizes Laboratory to Submit Copies of Test Reports To:
Contact: Georgina Morris
Email Address: gmorris@csr.com.au
Organization: CSR Pty Litd
Contact: Danielle van Asperen
Email Address: danielle.vanasperen@wovenimage.com
Organization: Woven Image Pty Ltd

Intertek Use Only	
Condition of Shipping Package:	Good
Condition of Sample:	Good
Sample ID:	GRR2510060008-1
GIN:	G106277965

*Indicates required field

Sample Handling*

	Printed Name*	Signature*	Date*	Company*
Relinquished By:	Jorge Sanchez	Jorge Sanchez	01/10/2025	Woven Image
Received by:	Lindsay Delamarter	Lindsay Delamarter	10/7/2025	Intertek